FREIGHT TRAFFIC ISSUE

How the Milwaukee's 'XL Special' **speeds freight** from Chicago to Seattle . . . . . p. 13

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November 25, 1963

RAILWAY AGE WEEKLY

PIGGYBACK's FIVE KEYS TO PROSPERITY

p. 42

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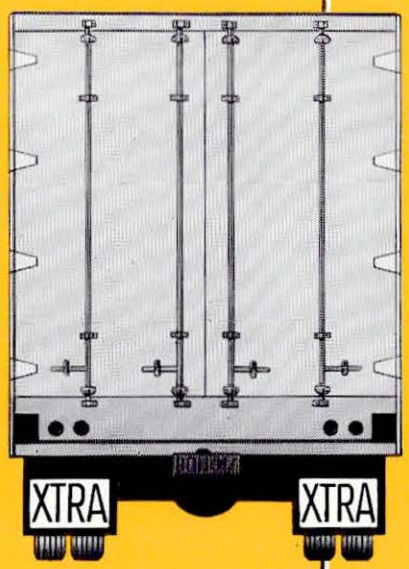

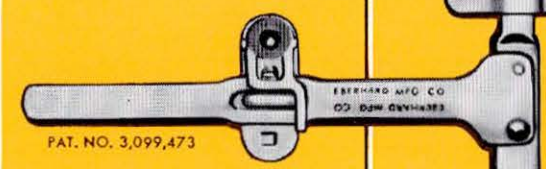

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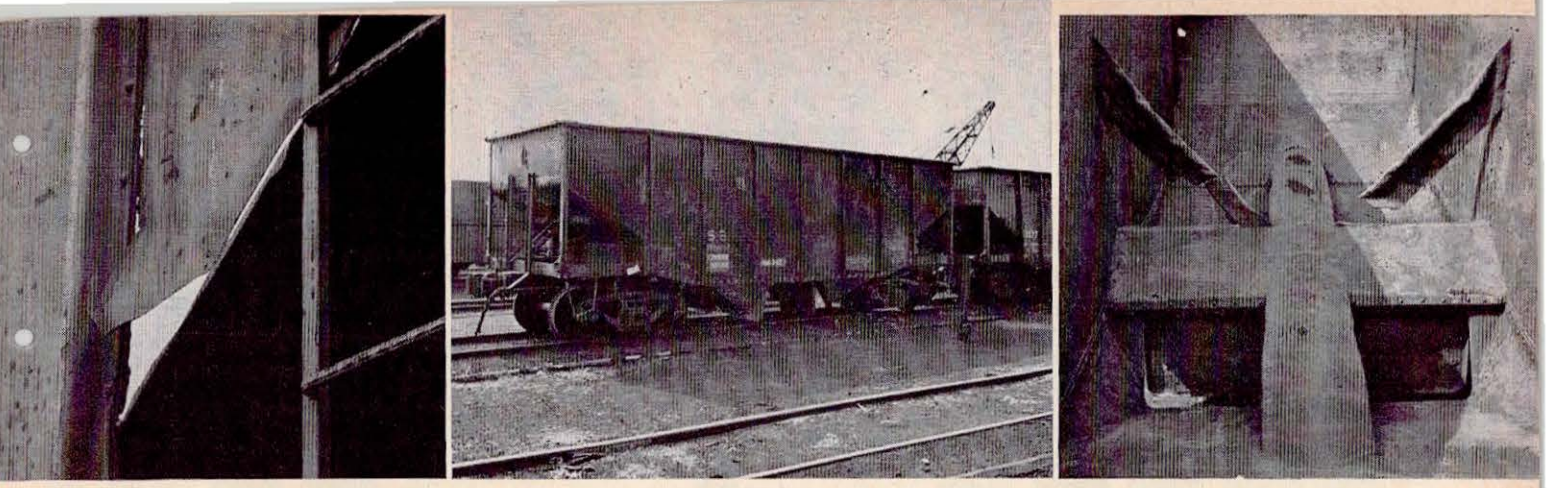

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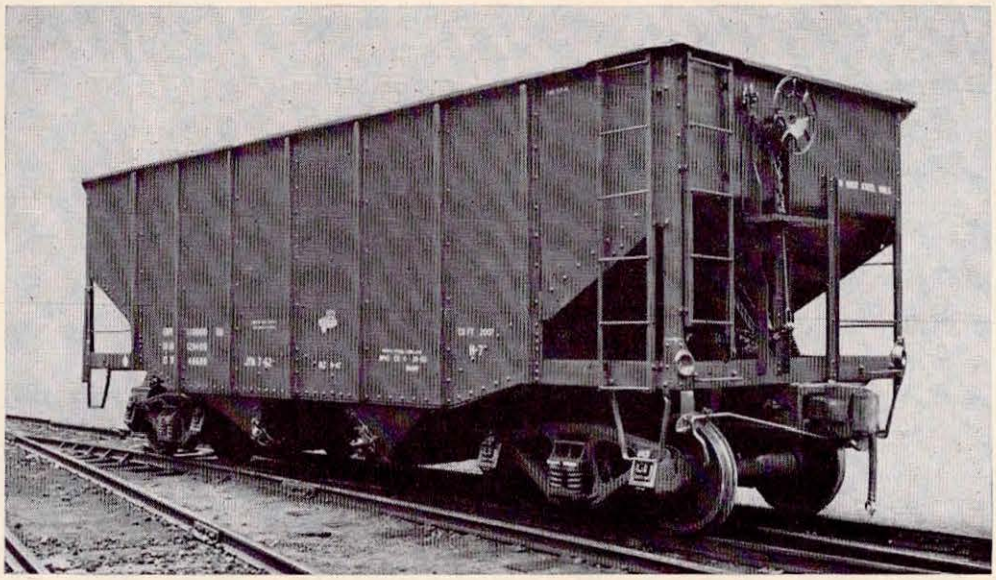

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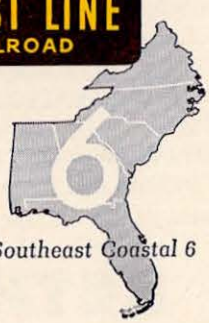

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RAILWAY AGE WEEK AT A GLANCE

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Milwaukee's new train speeds freight

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ICC calls cushioned cars safe

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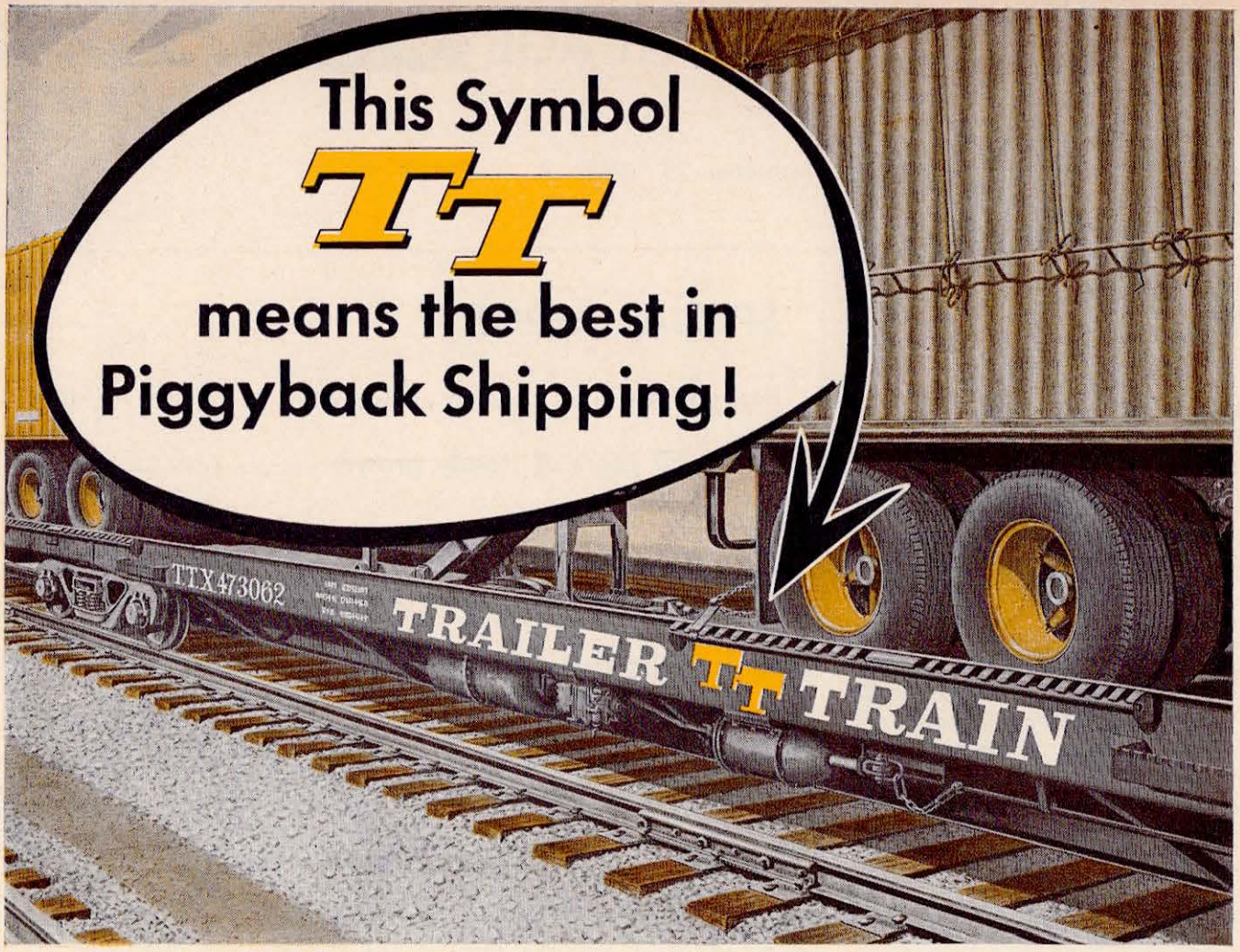

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RAILWAY AGE WEEK AT A GLANCE

Short and Significant

New business worth $65 million . . .

has been picked up by New York Central through "effective marketing techniques" that have tapped huge markets in moving autos, Flexi-Vans, coal, cement and other commodities.

Baltimore & Ohio profits in 1964 . . .

are expected to be double the road's anticipated 1963 profit of $5 million. B&O earned $3,744,000 the first nine months of this year, compared to a $1.2 million deficit for nine months in 1962.

Orders for 8,533 new freight cars . . .

were placed in October, bringing orders for the year so far to 45,107. Backlog of cars on order and undelivered now stands at 22,196 compared with 12,159 a year ago.

The New Haven will pay $300,000 . . .

to the federal government as a partial payment on $12.7 million owed in defaulted loans. The money is part of $1.8 million received from NYC as a share in Grand Central revenues.

Record nine-month earnings . . .

were reported last week by U.S. Freight Co. The freight forwarding system earned $3,769,730 on gross revenues of $168 million, President Morris Forgash reported.

Emergency Board recommendations . . .

in railroad labor disputes would be made final and binding on both parties under a proposal advanced last week by C&O's vice president for labor relations, Owen Clarke.

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Current Statistics

Operating revenue	
6 mos., 1963	4,714,888,444
6 mos., 1962	4,703,908,621
Operating expenses	
6 mos., 1963	3,683,992,541
6 mos., 1962	3,712,959,223
Taxes	
6 mos., 1963	464,644,151
6 mos., 1962	523,652,505
Net railway operating income	
6 mos., 1963	359,753,801
6 mos., 1962	275,271,282
Net income, estimated	
6 mos., 1963	270,000,000
6 mos., 1962	181,000,000

Carloadings revenue freight	
46 wks., 1963	25,841,087
46 wks., 1962	25,766,556
Freight cars on order	
Nov. 1, 1963	22,196
Nov. 1, 1962	12,159
Freight cars delivered	
10 mos., 1963	36,616
10 mos., 1962	32,451
Serviceable cars	
Oct. 1, 1963	1,409,980
Oct. 1, 1962	1,435,250
Cars awaiting repairs	
Oct. 1, 1963	117,177
Oct. 1, 1962	131,615

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WORK RULES

Luna breaks the stillness

The BRT threatens to test the constitutionality of the compulsory arbitration law and wants a federal rail inquiry.

While most railroad and union spokesmen last week were quietly awaiting the Nov. 26 decision of the arbitration board in the work-rules case, Trainmen President Charles Luna broke the stillness with an angry blast at compulsory arbitration.

Mr. Luna was in a fighting mood. So much so, that he took time out from attending the AFL-CIO conference in New York to call a press conference to announce that:

- The BRT is seriously considering challenging the constitutionality of the so-called compulsory arbitration law passed by Congress last August.
- And further, he called for a full scale federal investigation of the operational and financial structure of the nation's railroads. And "if they are incompetent, they should be taken over by the government."

The Trainmen's chief then fired off telegrams to President Kennedy and Congressional leaders requesting the investigation.

- **Engineers heard from.** Asked to comment on the BRT head's statements, R. E. Davidson, grand chief engineer, Brotherhood of Locomotive Engineers, said:

"I have read Mr. Luna's statement at his press conference, and while it should be made clear that he was not authorized, to my knowledge, to speak for any of the other railway operating unions on these matters, there is much in the context of his statement that could be agreed to, particularly with reference to compulsory arbitration and collective bargaining."

Meanwhile, it appeared that the other union chiefs were studying Mr. Luna's proposals, since no comments were immediately forthcoming.

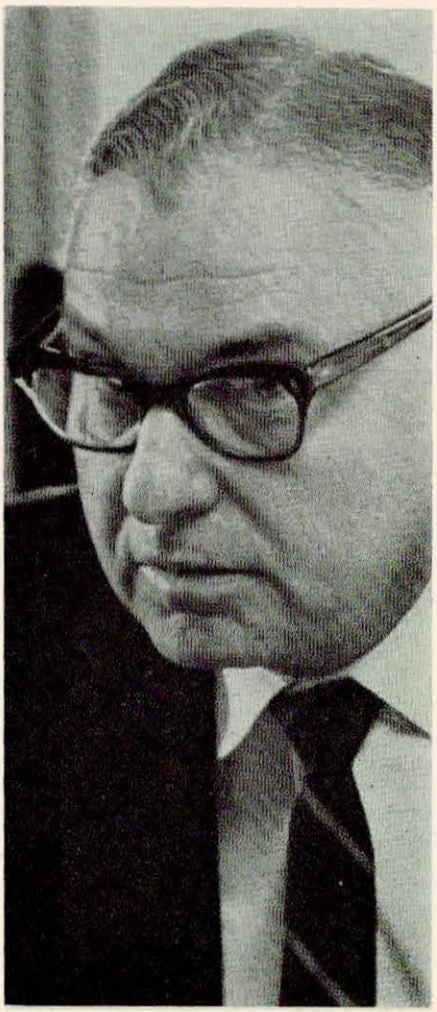
At his press conference in New York's Americana Hotel the BRT chief termed compulsory arbitration "a cancer" which "threatens all industrial relations and collective bargaining so painstakingly developed for a quarter of a century."

- **Campaign being planned.** Focusing on Public Law 88-108—the so-called compulsory arbitration law passed by Congress last August—he said the BRT's 200,000 members "are today pledging ourselves to present the facts to the American people so that they may continue the fight against compulsory arbitration until it is totally eliminated . . . If we can go to the Supreme Court to have compulsory arbitration declared unconstitutional, we will go to those lengths—we believe this matter is that important to the nation."

Mr. Luna said his union's three-point plan of action calls for enlisting all segments of society in the fight against compulsory arbitration, the arousing of support for collective bargaining, and assuring that the nation has a sound rail system for peace and wartime needs.

In the telegrams to President Kennedy and members of Congress, the union leader said "America and its economy need the railroads in peace and war. If they are in trouble help should be given. If not, this should be known so their petitions can be fairly denied. If they are incompetent, they should be taken over by government. Only an objective investigation with the public interest as its impetus can assess the situation," it concluded.

- **'Threat to management, labor.'** He characterized compulsory arbitration as being unsound and "a threat to democratic institutions, since it centers in monopoly government both political and economic authority. It is an incentive for one side not to bar-



BRT's Charles Luna

TAFT

• **THE ICC HAS BEEN DIRECTED** by the Senate's Committee on Appropriations to "provide sufficient inspector personnel to assure the movement of cars, particularly at harvest time." The "directive" was in the Committee's report on the bill (H.R. 8747) carrying proposed appropriations to finance the Commission for the current fiscal year. The report was prepared under the direction of Senator Warren Magnuson (D. Wash.), chairman of the Appropriations Subcommittee which held hearings on the bill. Senator Magnuson is also chairman of the Senate's Commerce Committee, and of that Committee's Special Subcommittee on Freight Car Shortages. The latter has advised the Commerce Committee to recommend passage by the Senate of the incentive per-diem bill, S. 1063. The railroad industry is divided on this bill, which is favored by the ICC and sponsored by some 35 senators, including Chairman Magnuson. It would give the ICC power to fix rental rates on a basis designed to encourage freight-car buying and more efficient utilization.

THE APPROPRIATIONS-COMMITTEE "DIRECTIVE" is to remain in effect until Congress has a chance to pass on this proposed legislation. At hearings held by the Appropriations Subcommittee, Chairman Magnuson appraised the prospects as follows: "We have had a similar bill in front of the Congress for each session. One time we even counted noses, and everybody east of the Mississippi voted no and everybody west of the Mississippi voted aye. There are more of them [the former] than there are of us."

MEANWHILE, the ICC's chairman, Laurence K. Walrath, had stated again the Commission's position in favor of the bill. He said the present per diem rate of $2.88 made renting cheaper than buying. He went on to say the railroads have no power to enforce a per-diem increase—"and those who do not go along with it do not pay it."

COMMISSION THINKING, its chairman continued, is that it could make its per-diem rates stick. He explained: "The difference between our doing it and the railroads doing it is, even if there were dissenters, we could enforce it, they could not. If the AAR sets the per diem rate, the owning railroads have to face law suits over what is a reasonable value." A new railroad approach to per-diem rates is scheduled to become effective Jan. 1, when the uniform-charge plan will be supplanted by a multi-level system, with varying rentals reflecting freight-car values (RA, Nov. 4, p. 10).

• **CLASSIFICATION-OF-FREIGHT ISSUE** may not be settled yet, despite the ICC's failure to take to the U.S. Supreme Court a lower-court ruling which seems to relieve carriers of all classification requirements except those involved in maintenance of the class-rate structure (RA, Nov. 18, p. 10). The court set aside a Commission order condemning some all-commodity rates, principally because they are subject to no mixing rule limiting the proportion of a carload which may consist of a single commodity.

IN THE AFTERMATH of the no-appeal decision has come a Commission order reopening the case (I&S No. 7131) for further consideration and further hearing. That could mean the Commission hopes to develop a better record and make a new report which would persuade the courts that something more than maintenance of the class-rate structure is required by the Interstate Commerce Act's call, in section 1 (6), for "just and reasonable classifications of property for transportation."

gain and preferably to choose what it hopes to be the political outcome of decision, a threat to management or labor, or both, depending on the bias of the administration in power."

He said agreement between management and labor "must be reached in a framework compatible with democratic values and a working economy."

If the railroad industry "cannot deal effectively with its workers and the public, then possibly the government must take over the railroads," he said.

Mr. Luna's blast brought him back into a spotlight he had held earlier in the work-rules dispute—but which had turned increasingly toward firemen's president H. E. Gilbert in recent months. The BRT threat to go to court represents a departure from privately indicated reluctance among the unions to go to court again after previous legal defeats in the work-rules case.

Santa Fe will cut fares 20%

Santa Fe has touched off what could develop into a new round of experimental passenger-fare cuts in the West.

ATSF is proposing to chop, by about 20%, off-season round-trip fares, both first-class and coach. Primary target is the traveler who uses his automobile—but the new rates will be well below air-coach and under bus fares on a number of routes.

The reduced fares would be effective Jan. 10, 1964, and would run through April 30. Results during the experimental period, says ATSF President E. S. Marsh, will determine whether the road will adopt a similar plan in succeeding off-seasons.

The new charges would be pegged at 140% of current one-way fares. Cut-rate tickets would be good on all Santa Fe trains, between any two system points, and would carry a 30-day limit.

Under the proposed scale, for example, fares would be cut to $94.35 coach and $119.80 first class, Chicago-Los Angeles, compared to the current fare level of $115.15 and $139.45, respectively. Round-trip bus fare for the same routing is $88.75, air coach (including tax) $178.50.

Other fares will be comparable. Chicago-Kansas round-trip will be $19.55 coach and $24.80 first class. Present fares are $25.15 and $31.90, respectively, bus is $20.25 and air-coach is $46.20. For a Chicago-Dallas round-trip, a passenger will pay $41.10 coach or $51.85 first class, compared to present ATSF fares of $52.80 coach and $66.65 first class. Bus fare for the same trip is $41.50, air-coach $94.50.

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How Milwaukee's new train speeds freight

The 'XL Special,' which the Milwaukee calls the fastest run in the Northwest, takes only 55½ hours to travel from Chicago to Seattle, Wash.—which rivals some passenger-train schedules.

An engineer's slide rule and the operating department's experience are responsible for setting up and checking out the timecard for the Milwaukee's newest freight train—the "XL Special." A milepost-by-milepost study of the new freight's movements during the past month has convinced Milwaukee officers that the snappy time of 55½ hours from Chicago to Seattle—which rivals some passenger-train schedules—can be maintained.

The study—made from the vantage points of an office car and a dynamometer car— has revealed an astonishing similarity between the working schedule and the timetable charted by the slide-rule railroaders at headquarters. The only changes indicated have been rolling adjustments — less time for the eastern end of the run and more time for the mountain territory.

• **Guide schedules prepared.** The XL Special, naturally dubbled the fastest run in the Northwest by Milwaukee, began to take shape late in 1961, when the road's tunnel-clearance improvement program was completed. Guide schedules, set up some time before the train went into service Oct. 26, resulted from conferences of division superintendents who gave their estimates of how much time a train would need to get over their divisions.

Assistant Engineer Matthew Lewis, the man who worked out the theoretical schedules for the "Hiawathas" in 1935, was called in to compute a schedule for the XL Special which reflected all factors "that might in any way affect the movement of the train. We knew what kind of a train we had to have. We worked on the basis of a 3,000-ton train hauled by four GP-30's—9,000 horsepower." Other factors were a 2:30 p.m. departure from Chicago on Monday, for example, pickups at Milwaukee, St. Paul-Minneapolis and Aberdeen, S.D., and arrival Wednesday at 11:30 a.m. at Spokane and at 8 p.m. in Seattle.

Milwaukee President William J. Quinn points out that the fast train's afternoon departure from Chicago was designed to permit inclusion of cars loaded in the Chicago area the night before, TOFC traffic delivered as late as an hour-and-a-half before departure, and late-morning deliveries from Eastern and Southern connections. The train's arrival time in Seattle was set up to allow delivery throughout the Puget Sound area on the morning following arrival in Seattle. "Our new schedule," explains Mr. Quinn, "was worked out to help shippers operate their businesses as efficiently and competitively **as possible."**

• **Mile-by-mile checks.** When the first XL Special roared out of Chicago on Oct. 26, an office car and a dynamometer car were in the consist. Riding the train were top Milwaukee operating and engineering officers, checking the formula for the eye-opening schedule: controlled tonnage, reduced terminal time and increased horsepower. "Our guide schedule was, of course, based on experience," notes Virgil Glosup, assistant vice president operations-chief engineer, "but experience isn't enough. We had to see how time allocated for runs between terminals, for set-outs and for crew changes worked out."

Importantly, Milwaukee officers wanted a milepost-by-milepost diagram of the XL Special, with speed, drawbar pull and times indicated. This information is checked against the theoretical schedule to insure the kind of "cast-iron dependability" that David Valentine, Milwaukee's general superintendent of transportation, says is at the heart of any good schedule.

"One thing we found immediately," he notes, "was that there were areas in the schedule that needed tightening. Also, there were spots that needed letting out. For instance, we found it advantageous to put the additional time in our mountain territory—that gave us more flexibility where the possibility of delays is strongest." Mr. Valentine points out that many factors can affect train operation in Milwaukee's mountain territory: snow, unpredictable weather and, of course, the steep grades over the mountains.

(Continued on page 70)

"MOPAC CUSTOMERS

MOPAC HYDRA-CUSHION EQUIPPED FLEET NOW TOTALS 1515!

The Missouri Pacific Railroad installed its first Hydra-Cushion Underframe cars in 1960—twenty-five of them; later fifty more. In 1962, MOPAC, along with its subsidiaries, bought an additional 600 cars, and converted fifteen *existing* cars, with Hydra-Cushion Underframes. *This year, MOPAC ordered 825 more Hydra-Cushion equipped cars!* MOPAC now has a fleet of 1515 cars equipped with Hydra-Cushion Underframes! The railroad has found shippers partial to these cars, lading damage payments minimized, cars in service more hours per week earning more, and maintenance costs extremely low. Only Hydra-Cushion equipment combines low-pressure hydraulics with multiple friction plates; making possible maximum cushioning without excessive sill travel. The Hydra-Cushion design minimizes curvature problems, coupling difficulties, and undesirable overhang. Only Hydra-Cushion equipment uses hydraulic fluid in an upright, *not a horizontal* cylinder . . . operates with a fraction of the hydraulic pressure of other devices. The Missouri Pacific System is one of a growing list of progressive railroads who are earning greater revenue, and providing better customer service, with America's leading cushioning device . . . Hydra-Cushion Underframe. Dept. M-11, Hydra-Cushion, Inc., 332 South Michigan Avenue, Chicago, Illinois, 60604 or 13101 Eckles Road, Plymouth, Michigan, 48170.

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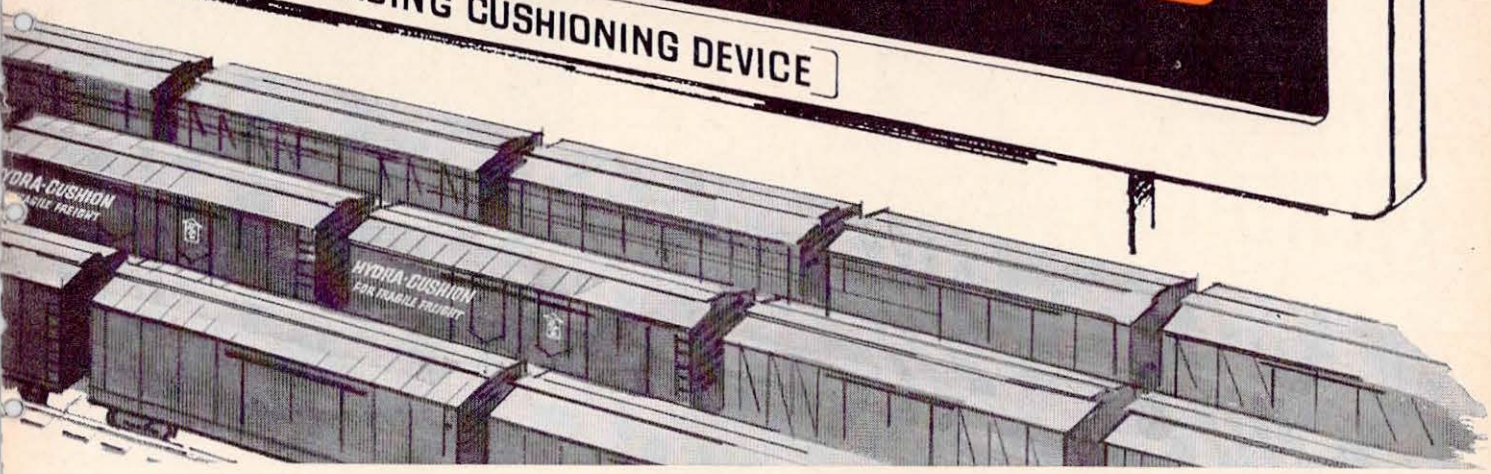
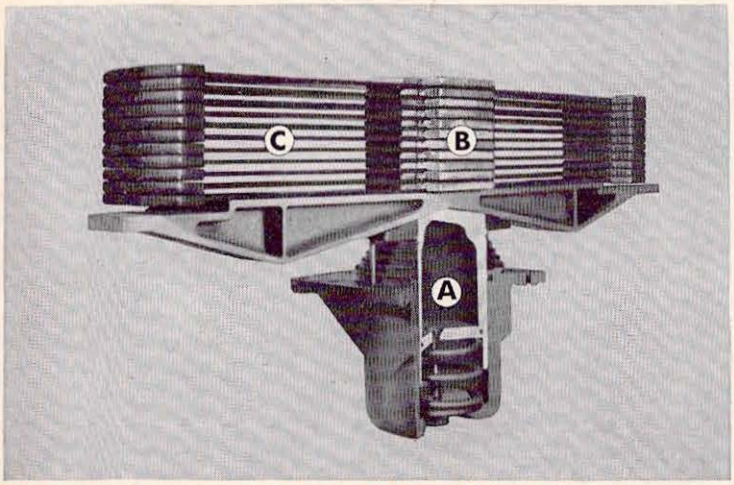
REALLY LIKE 'EM!"

PACIFIC ORDERS HYDRA-CUSHION® UNDERFRAMES

AMERICA'S LEADING CUSHIONING DEVICE



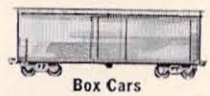


THIS COMBINATION MAKES THE BIG DIFFERENCE IN CAR CUSHIONING

NOW EASILY INSTALLED ON EXISTING OR NEW CARS

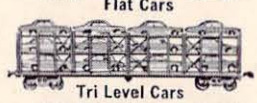
Other modern cushioning devices rely on high-pressure hydraulics. The unique Hydra-Cushion system combines a low-pressure hydraulic unit (A) with a set of fixed (B) and movable (C) friction plates. Upon impact, the moving sill actuates the hydraulic unit which, in turn, exerts increasing pressure upon the friction plates to achieve powerful braking action. The impact force is so reduced that damage-causing shock is eliminated. There is no jolt of recoil. Springs within the sill return it gently to normal position.

Hydra-Cushion equipment is proving its superior performance on all types of cars.


Box Cars

Tank Cars

Flat Cars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Make piggy-back hitching a profitable up-down-and-out operation

Piggy-back operations

The new CP-991 Heavy-Duty Reversible Electric Wrench makes quick work of loading or unloading cars with trailer hitches. Ruggedly built, weather-resistant, the CP-991 has a built-in tolerance for overloads frequently encountered at extreme hitch positions. Extension handle and integral foot plate relieve operator of torque reaction on practically any type car. Operates on AC or DC. Just plug into convenient 115 v. outlet. Also available in a 230 v. AC-DC model. Air-powered wrenches in lightweight utility and heavy-duty ratings are available.

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The CP-991 raises a fully loaded multi-deck auto carrier rack to travel position in less than 7 minutes. A second wrench will reduce car-loading time by an additional 40%.

CP-991 Electric Wrench

1″ square drive – reversible

- The Electric Wrench with built-in reserve to withstand severe overloading and momentary stalling.
- Eliminates troublesome slip clutches.
- One standardized motor unit handles all piggy-back hitch operations and multi-deck carrier applications.

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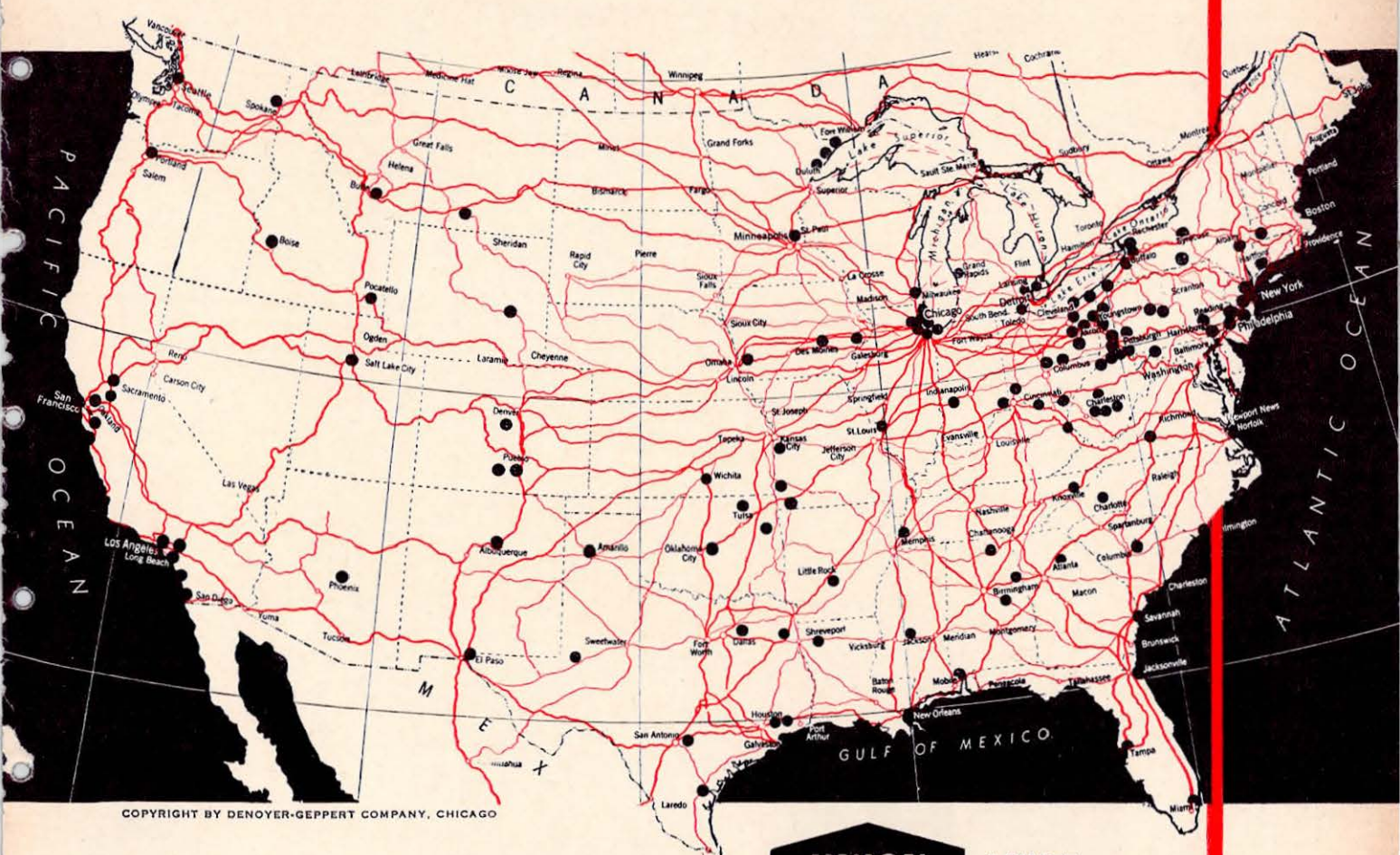
From the Boston and Maine to the Southern Pacific—from the Great Northern to the Florida East Coast—LINDE, through an earlier affiliation and the Oxweld Railroad Department, has been serving the nation's railroads for over fifty-five years. Wherever railroads expanded, LINDE went along to serve them and the industries that followed.

We're grateful to the nation's railroads. Without them, it would be extremely difficult to serve our customers economically. LINDE, like other major suppliers and manufacturers, depends on railroads for efficient distribution. LINDE's production and distribution of oxygen, argon and other industrial gases would be severely hampered without our fleet of railroad cars. As the map indicates, our network of production plants and storage stations covers strategic rail points throughout the nation. Whatever your requirements—liquid gases for storage tanks, liquid in portable cylinders, or gas in high pressure cylinders—LINDE can serve you efficiently and economically.

You'll find the same high standard of performance in other Oxweld Railroad Department operations. For example, our service and sales engineers work closely with your specialists to solve your gas and electric welding problems. They continually seek new products, processes and materials that will help you streamline your mechanical and engineering operations.

Union Carbide Corporation, Linde Division, Oxweld Railroad Department, 270 Park Ave., N. Y., N. Y. 10017 or 230 North Michigan Ave., Chicago, Ill. 60601.



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OXWELD Railroad Department

UNION CARBIDE

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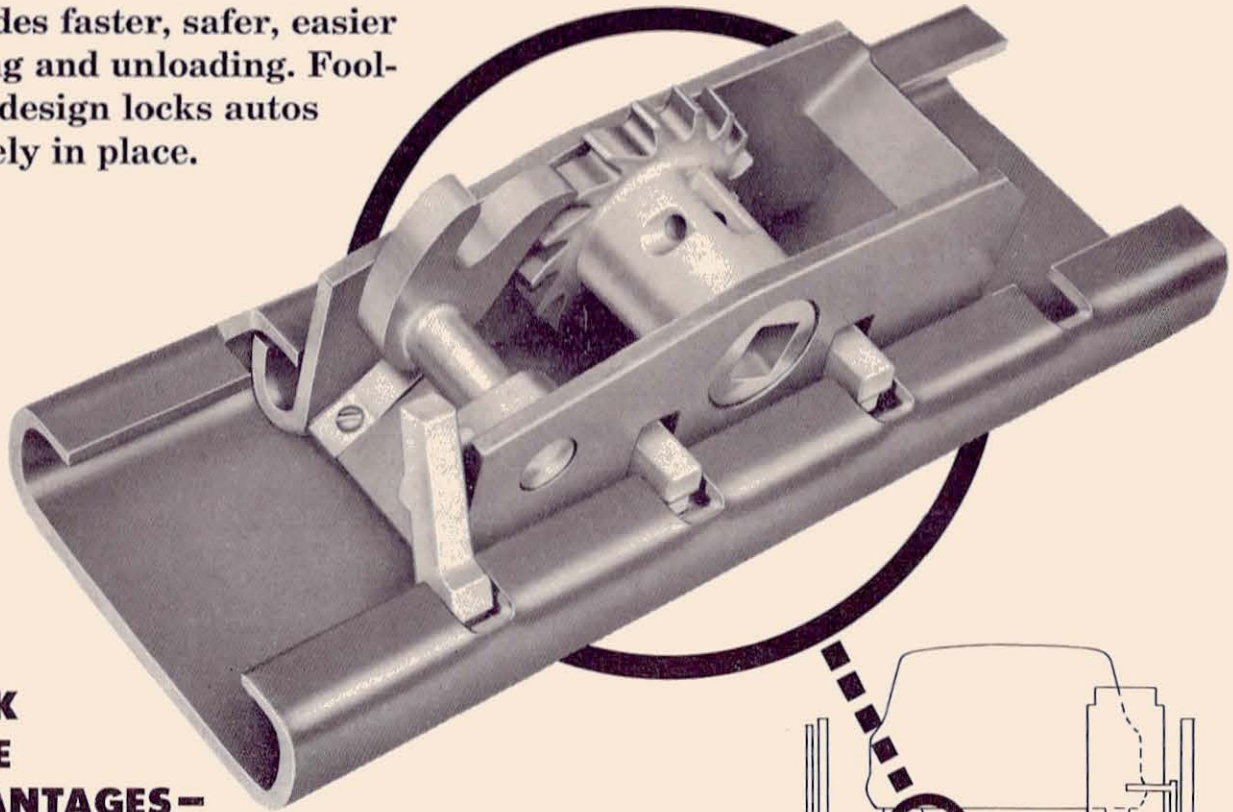
Provides faster, safer, easier loading and unloading. Foolproof design locks autos securely in place.



CHECK THESE ADVANTAGES—

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- Simple one hand operation
- Positive lock to channel
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- Single acting ratchet wheel chain drum
- Quick change connection pin to chain drum
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- No winch bottom to hold ice or snow
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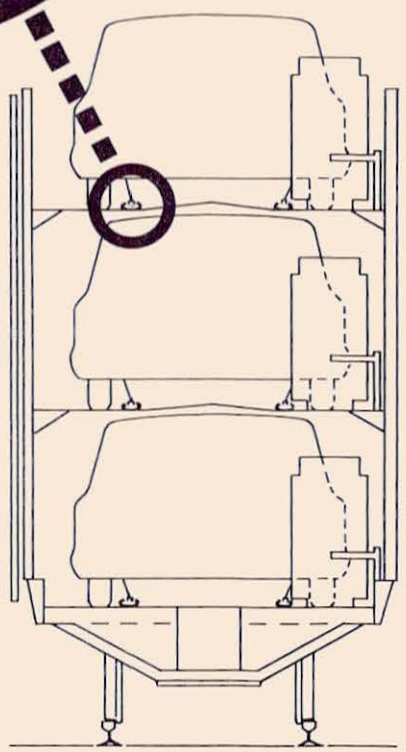
- Spring loaded pawl—while ratcheting
- 150° chain arc—in two steps
- Wrench drive—both sides of drum



All new Dana bi-level and tri-level racks feature heavy-duty tie down channel throughout.

FOR MORE INFORMATION, ENGINEERING DATA, AND ASSISTANCE . . . WRITE—

DANA Spicer **DANA CORPORATION** Dept. 86, Toledo, Ohio 43601

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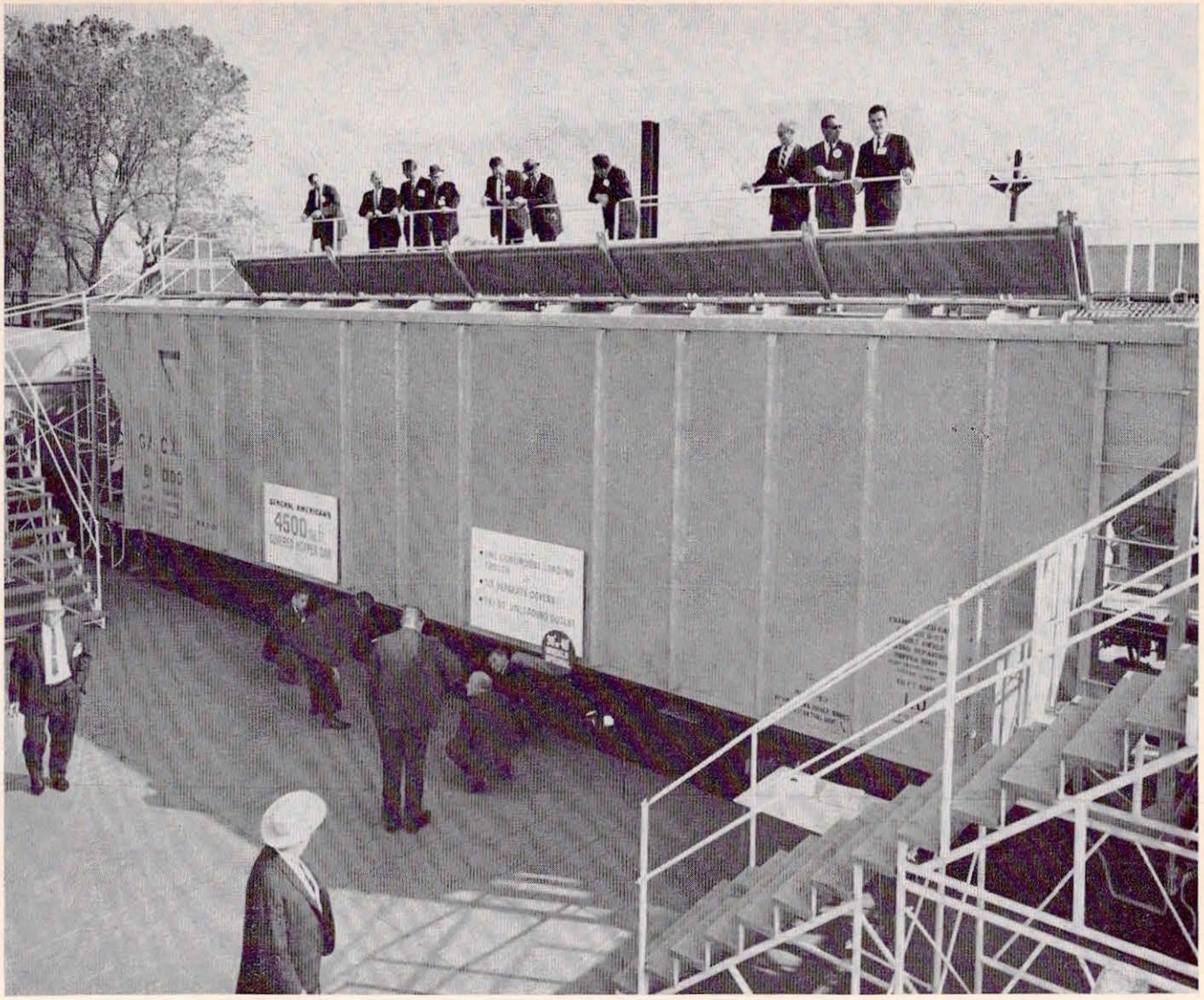

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With these big firsts!

1. Six independent trough covers with one continuous loading trough—can be loaded under all weather conditions.
2. Three large 24″ x 50″ gravity discharge outlets for maximum unloading efficiency.
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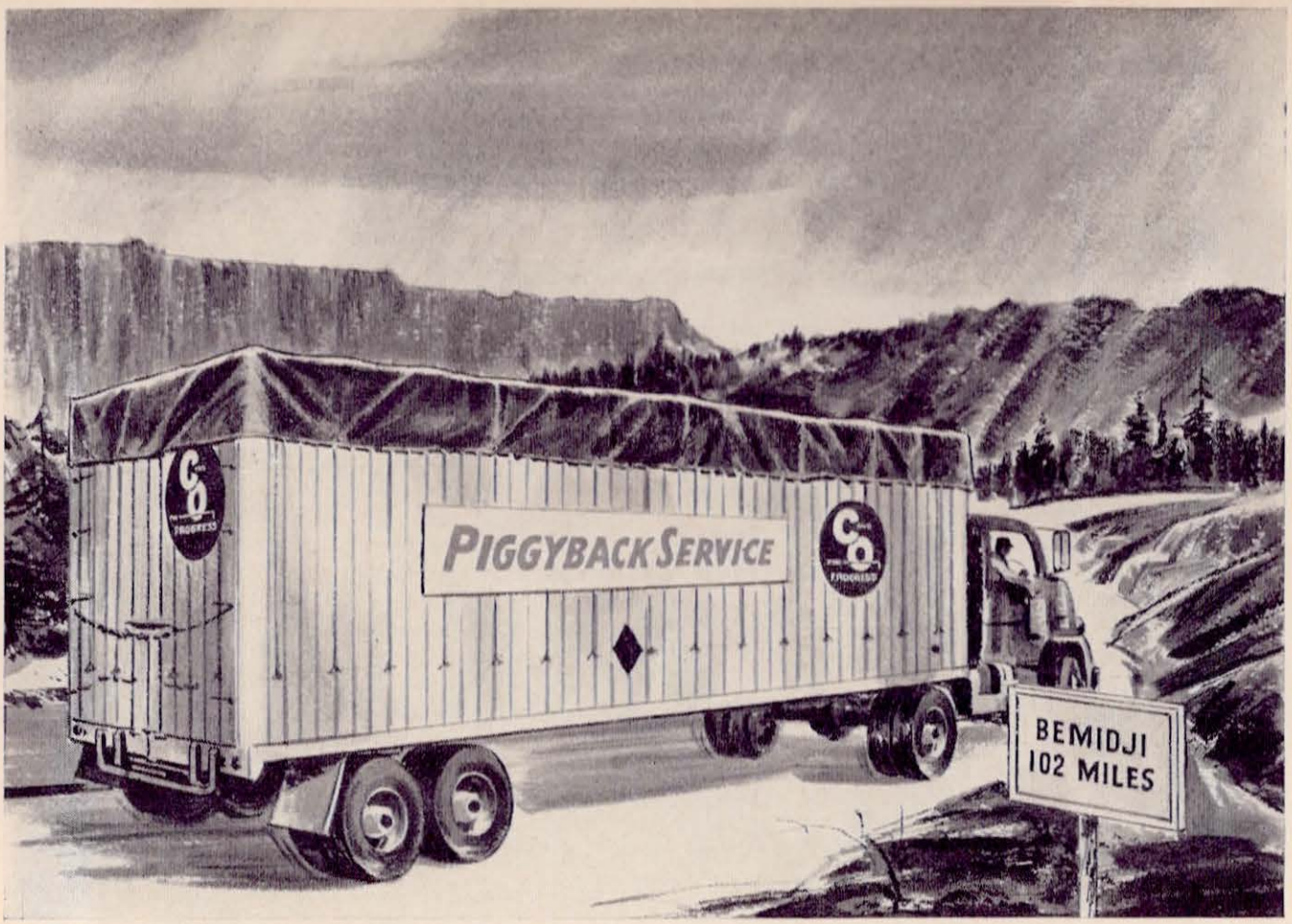
For more details, call General American, FInancial 6-4100, Chicago.

FREIGHT CAR DIVISION

General American Transportation Corporation

135 South La Salle Street Chicago 90, Illinois



Brooklyn, Buffalo or Bemidji . . . Piggyback moves it via Chessie

That's right! Now C&O's own piggyback trailers go far beyond The Chessie Route. For example, a Buffalo-originated shipment travels via C&O to a piggyback ramp in Chicago, where cab and driver take over to destination. That can be anywhere in 36 states, and three provinces in Canada, and constantly expanding.

This newly installed method, Piggyback Plan V, is a coordinated Chessie-trucker partnership to give you fast, economical service. From your shipping dock, merchandise stays untouched in modern trailers — and there's a type specially designed for your products — until it reaches your customer. Shipments can be made in either direction, on through rates and on a single bill of lading.

Is this for you . . . or would other piggyback plans more closely meet your needs? Your resourceful C&O representative can help you. And show you case histories to prove Chessie's Piggyback is flexible, dependable, designed for your needs. Or get in touch with J. H. Suthann, General Manager, C&O Piggyback Services.

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Chesapeake and Ohio Railway

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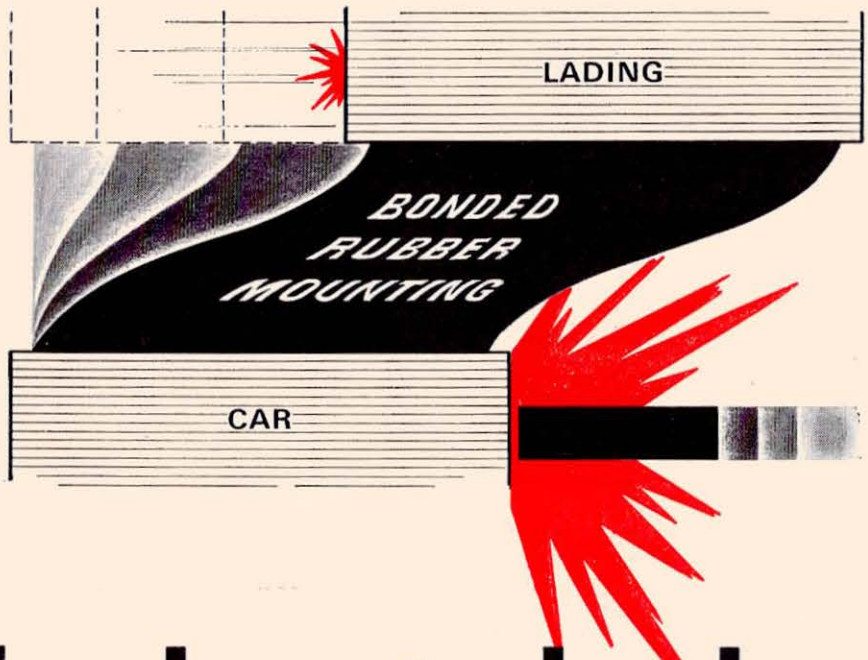
On Dana Corporation's auto rack cars...

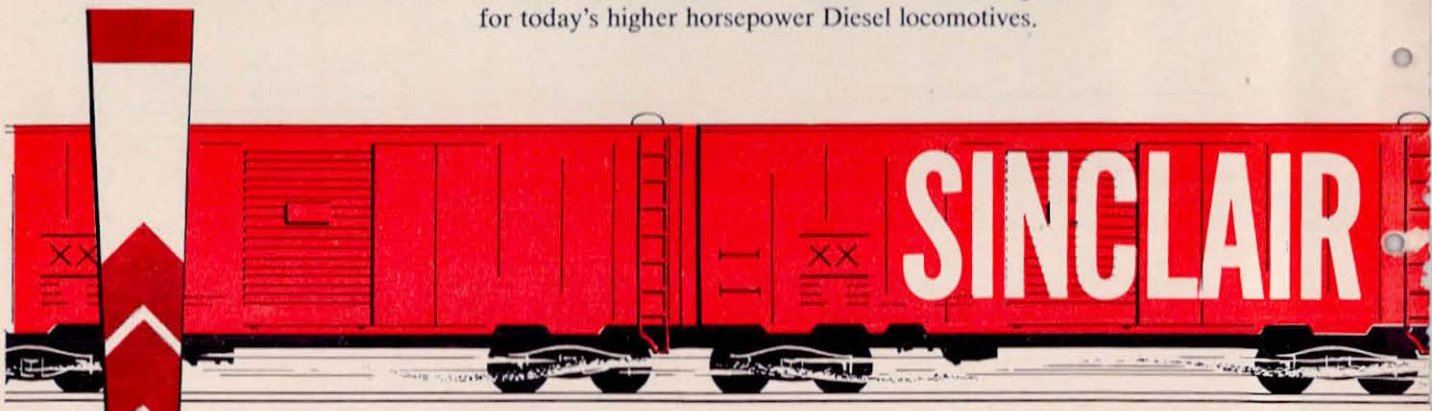


Lord controls shock

More and more cars for cushioned service use Lord shock mountings. Why? Because Lord uses *rubber with a backbone of steel.* There's no better or more economical way to provide shock protection. Find out more. Call your Lord Field Engineer. Lord Manufacturing Company, Erie, Pa. Field Engineering Offices in principal cities. In Canada: Railway & Power Engineering Corp., Ltd.

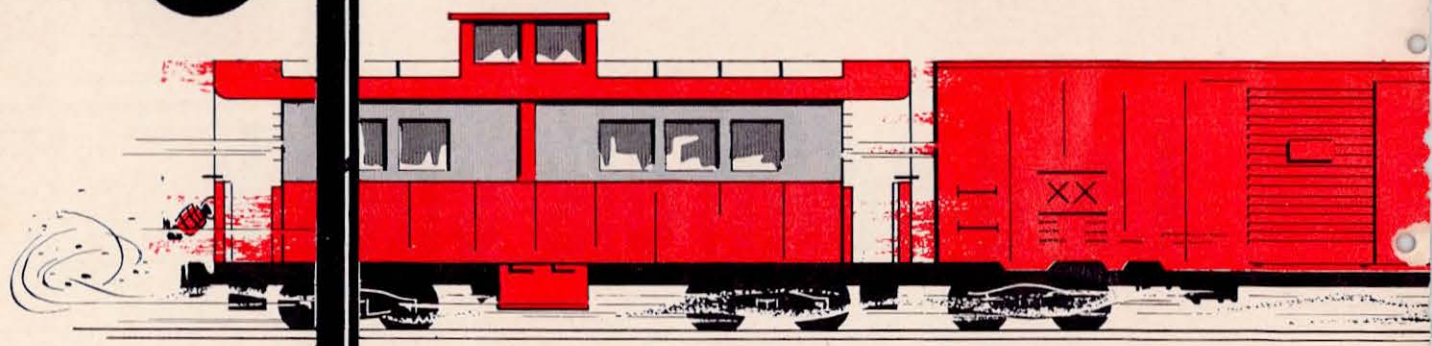
LORD®

Choice of more than 100 railroads—a lubricating oil for today's higher horsepower Diesel locomotives.

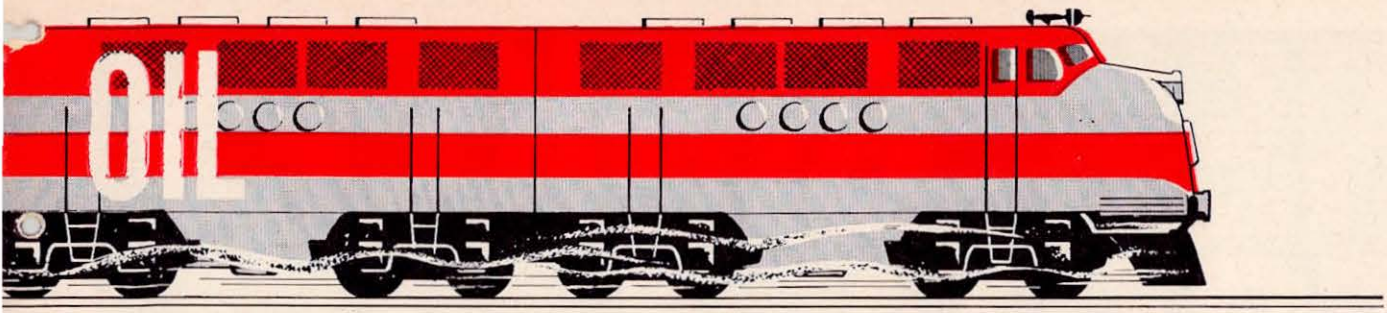


Made with rich, rugged Pennsylvania oil that cushions traction motor gear teeth—unsurpassed for heavy-duty work in Diesel traction motor gears.

A superior grease for Diesel locomotives and car journal roller bearings. AAR approved.



Contains effective oxidation, rust and foam inhibitors, for improved Diesel locomotive air compressor lubrication.



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NEW BINKLEY FORTY-FIVER

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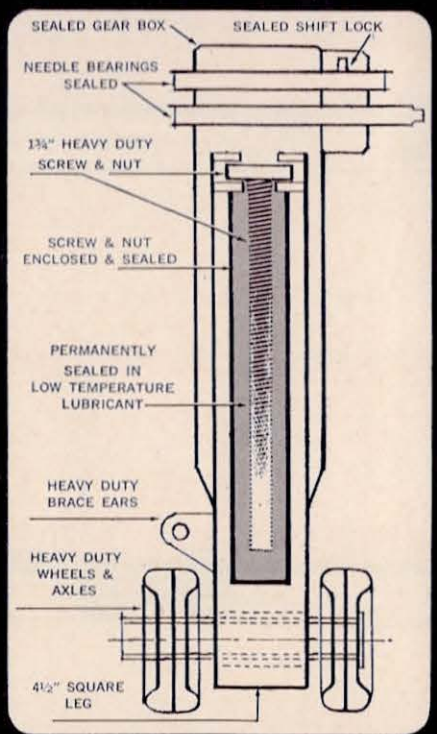
THE LANDING GEAR YOU WANTED... 45-TON CAPACITY... ENGINEERED SPECIFICALLY FOR PIGGYBACK !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Here's the landing gear *you* asked for. The strongest available! The only unit designed for one purpose alone. To conquer the big piggyback loading jobs. End maintenance, speed handling, cut the big jobs down to size with the Binkley Forty-Fiver! Call or write for literature and prices today!

Binkley also supplies roll formed structural parts and liners for truck trailers and rail cars. Sliding tandems and movable fifth wheel mounts. Locks, hinges, a complete line of hardware. This combination of dependable equipment makes Binkley Piggyback's Best Friend!

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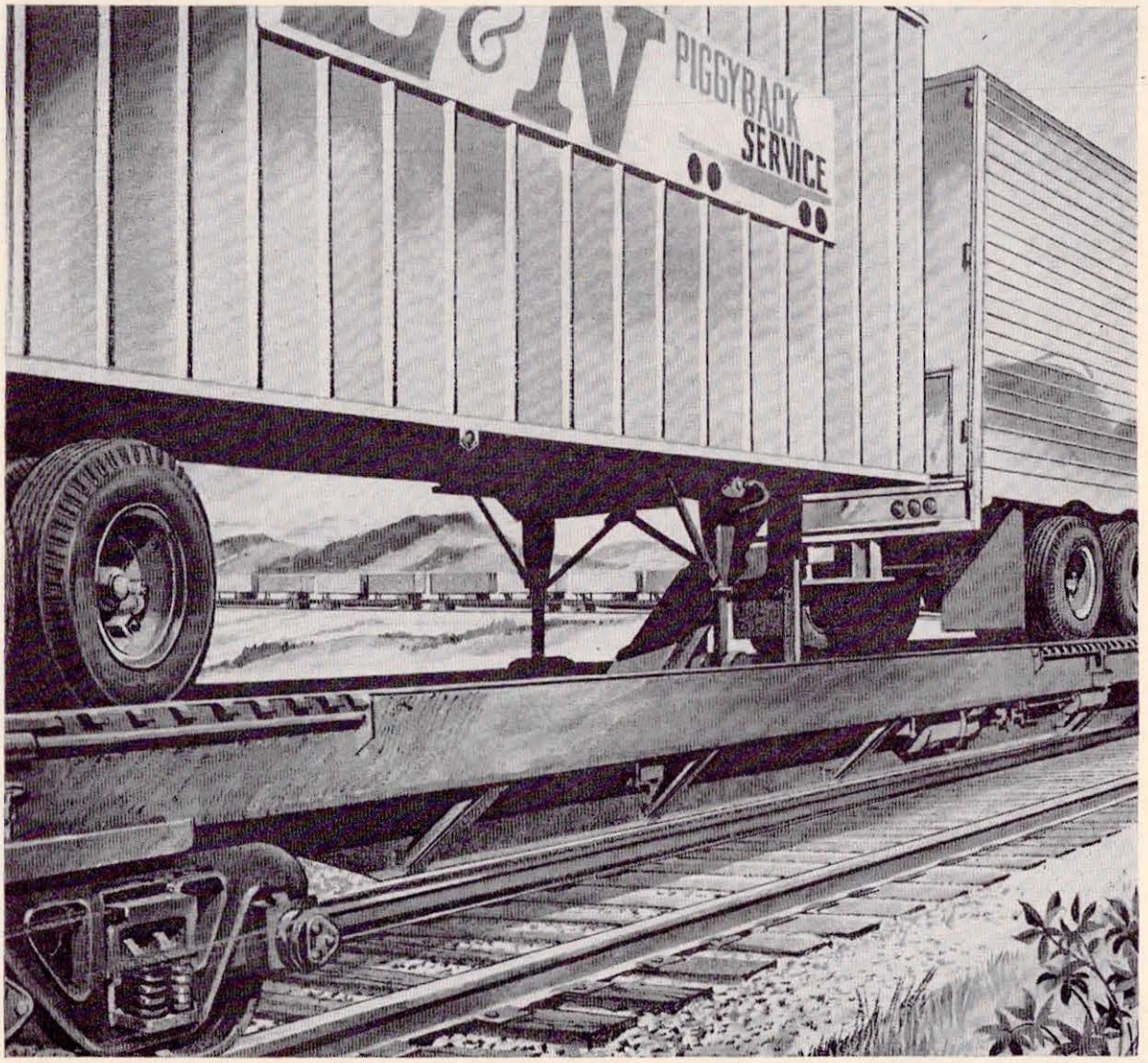

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Whether your operation calls for delux insulated vans, low-cost freight trailers or rugged platforms, it will pay you to call in Dorsey Special Product Division engineers.

Our complete line includes models designed to withstand the strain of piggyback duty and our manufacturing methods permit economical modifications to meet special requirements.

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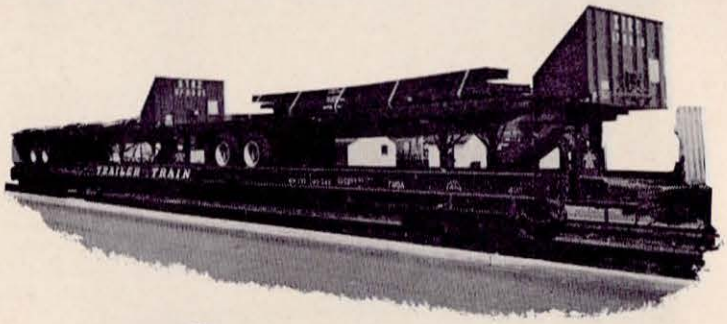

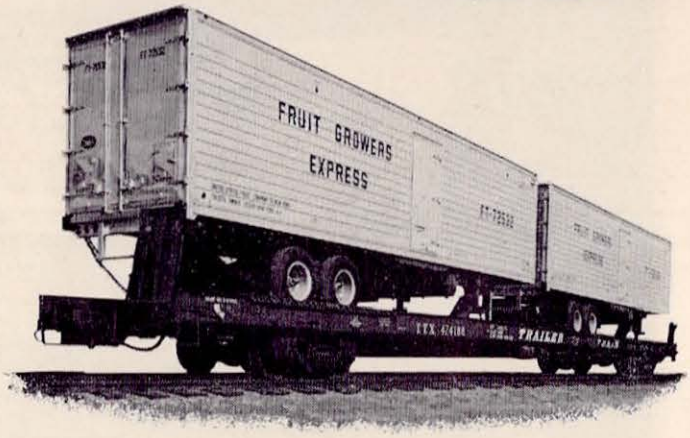

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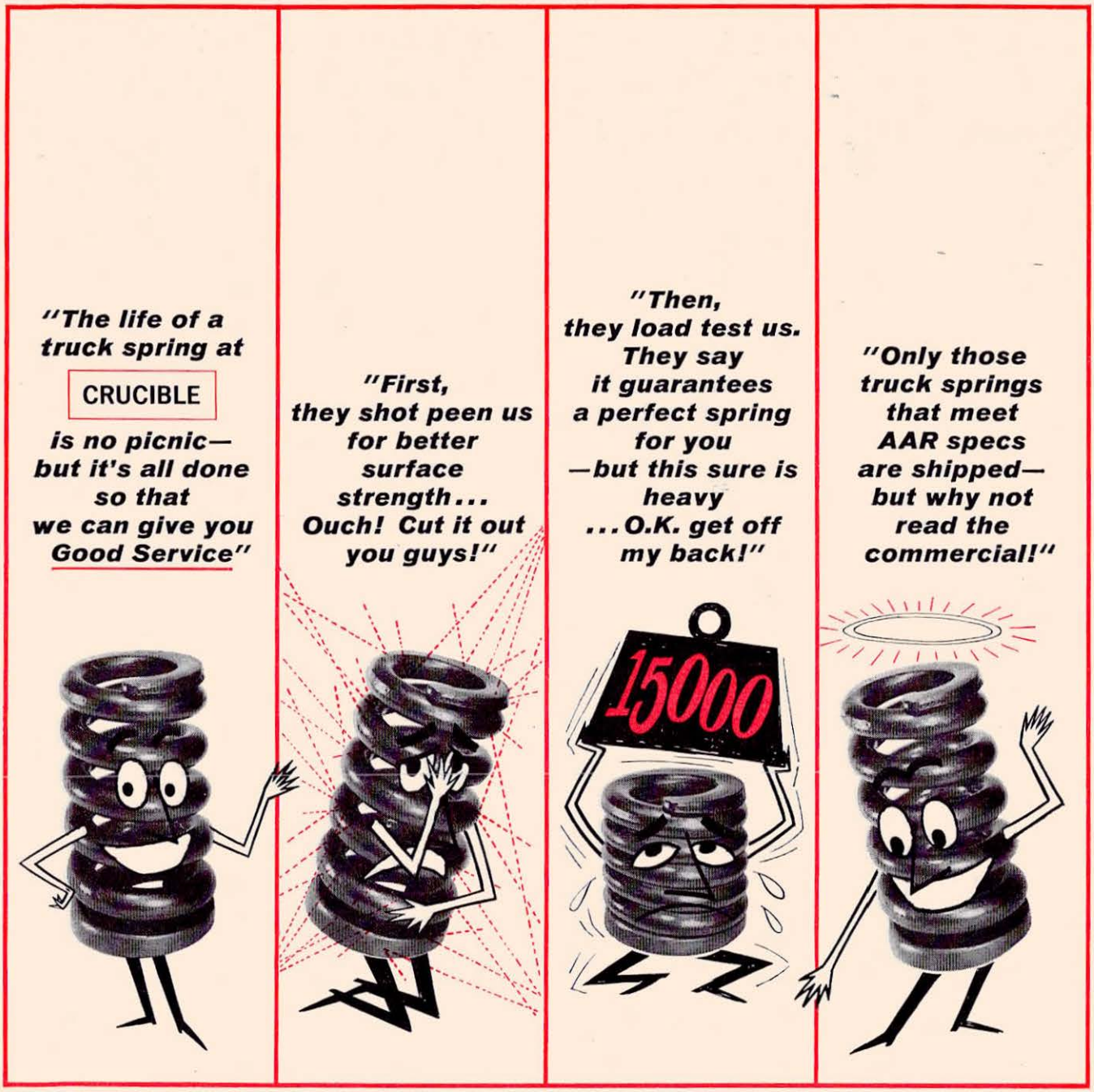
"The life of a truck spring at
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is no picnic—but it's all done so that we can give you Good Service"
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"Then, they load test us. They say it guarantees a perfect spring for you —but this sure is heavy ...O.K. get off my back!"
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CRUCIBLE STEEL COMPANY OF AMERICA
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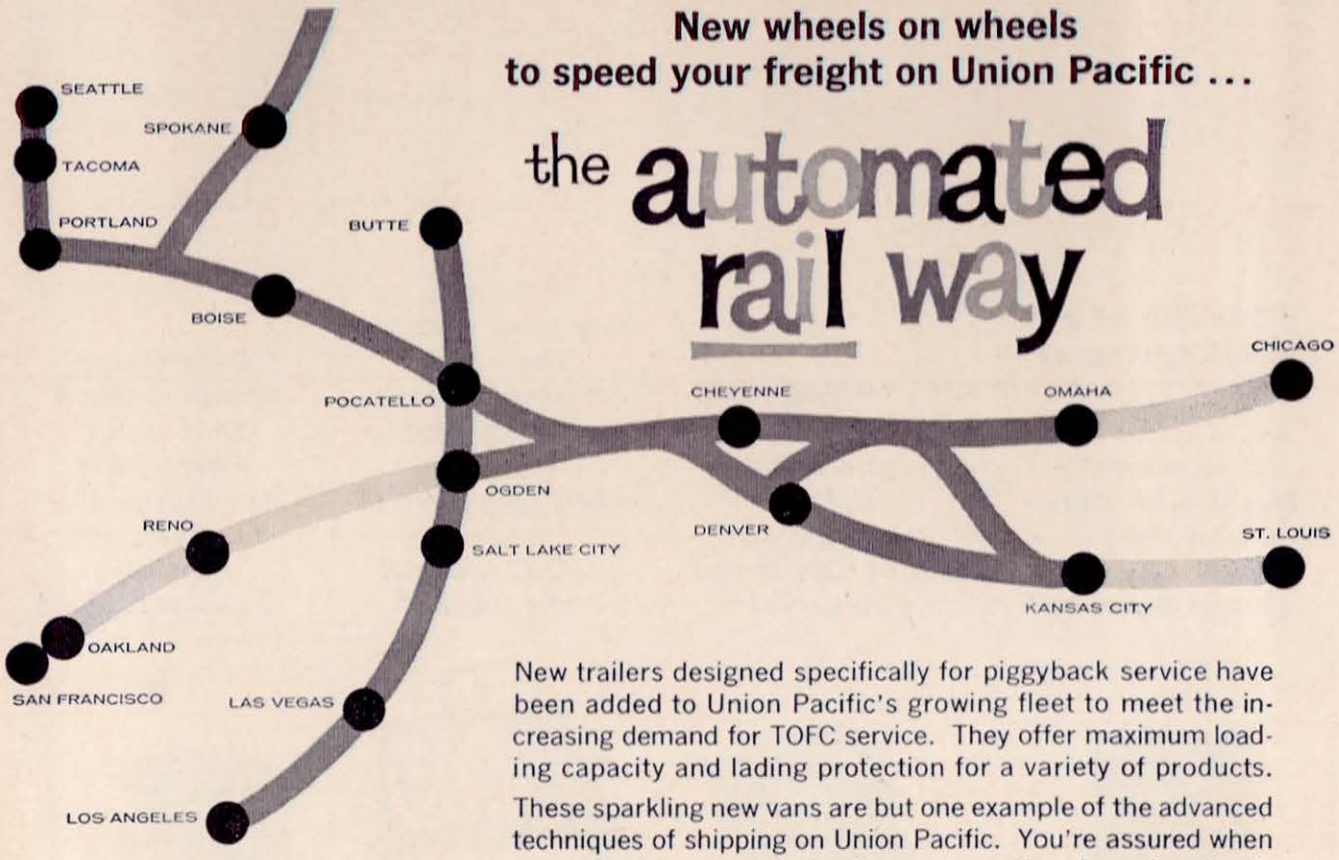
New wheels on wheels to speed your freight on Union Pacific . . .

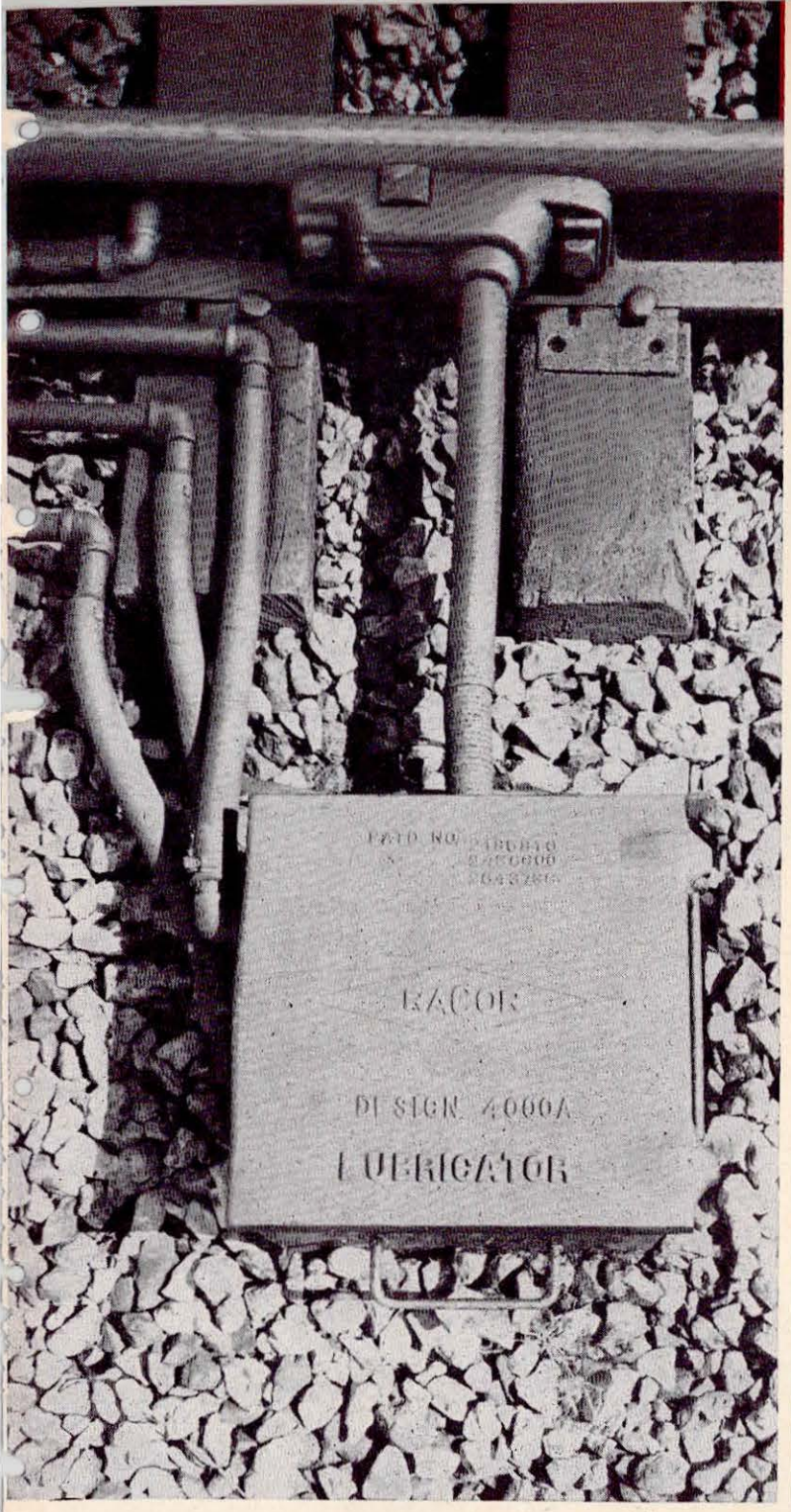
the automated rail way

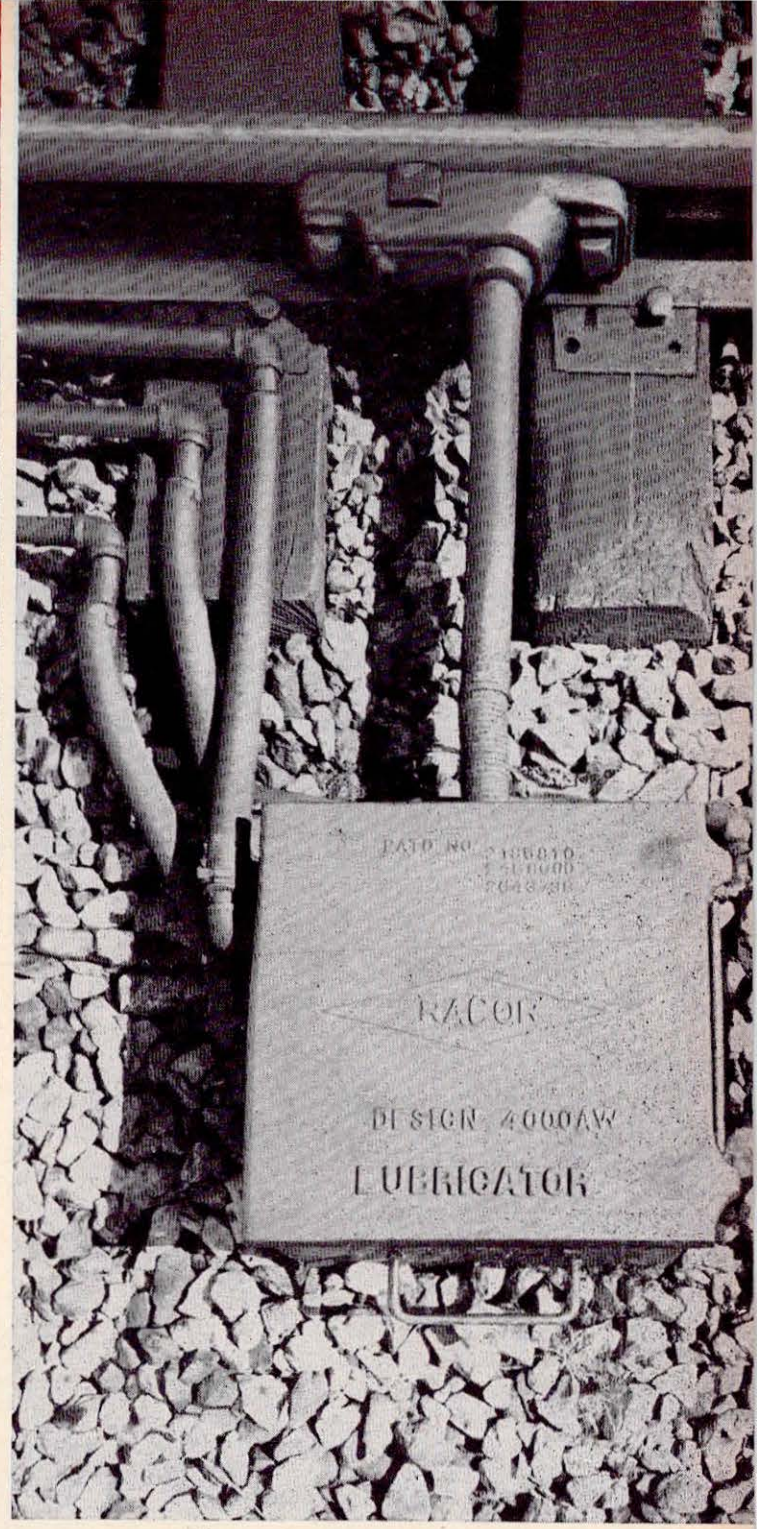


New trailers designed specifically for piggyback service have been added to Union Pacific's growing fleet to meet the increasing demand for TOFC service. They offer maximum loading capacity and lading protection for a variety of products.

These sparkling new vans are but one example of the advanced techniques of shipping on Union Pacific. You're assured when you ship the automated rail way, a quality of service that is modern, prompt, safe and sure. Whatever, whenever you ship . . . be specific, say "Union Pacific."

UNION PACIFIC *Railroad*
OMAHA 2, NEBRASKA





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the new, easy-to-install Racor® 4000AW

Every foot of continuous welded rail stays right in track when the Racor 4000AW is installed. The lubricant delivery plate is attached directly to the welded rail. No special rail section is needed.

Racor 4000AW lubricators can be placed in the spiral of a curve, allowing wheels to crowd against the delivery plate. Grease is picked up by every wheel flange for complete protection of wheels and welded rail.

The heavy delivery plate of the Racor 4000AW is protected by the rail, avoiding broken edges and ensuring operation with practically no maintenance.

For complete information on Racor lubricators for welded or jointed rail, contact your Brake Shoe representative. Or write: Railroad Products Division, 530 Fifth Avenue, New York 36, N.Y.

AMERICAN **Brake Shoe** COMPANY

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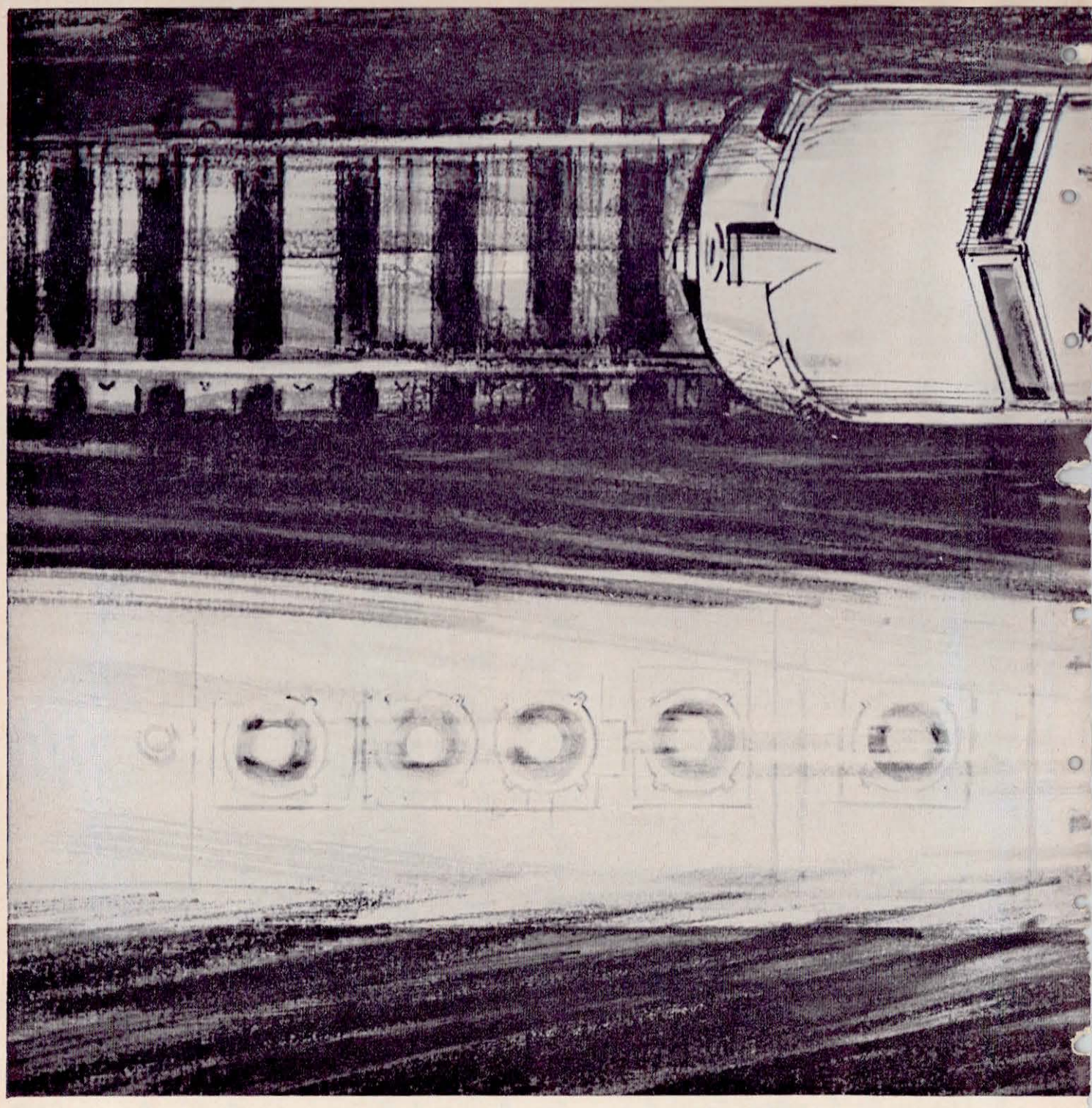
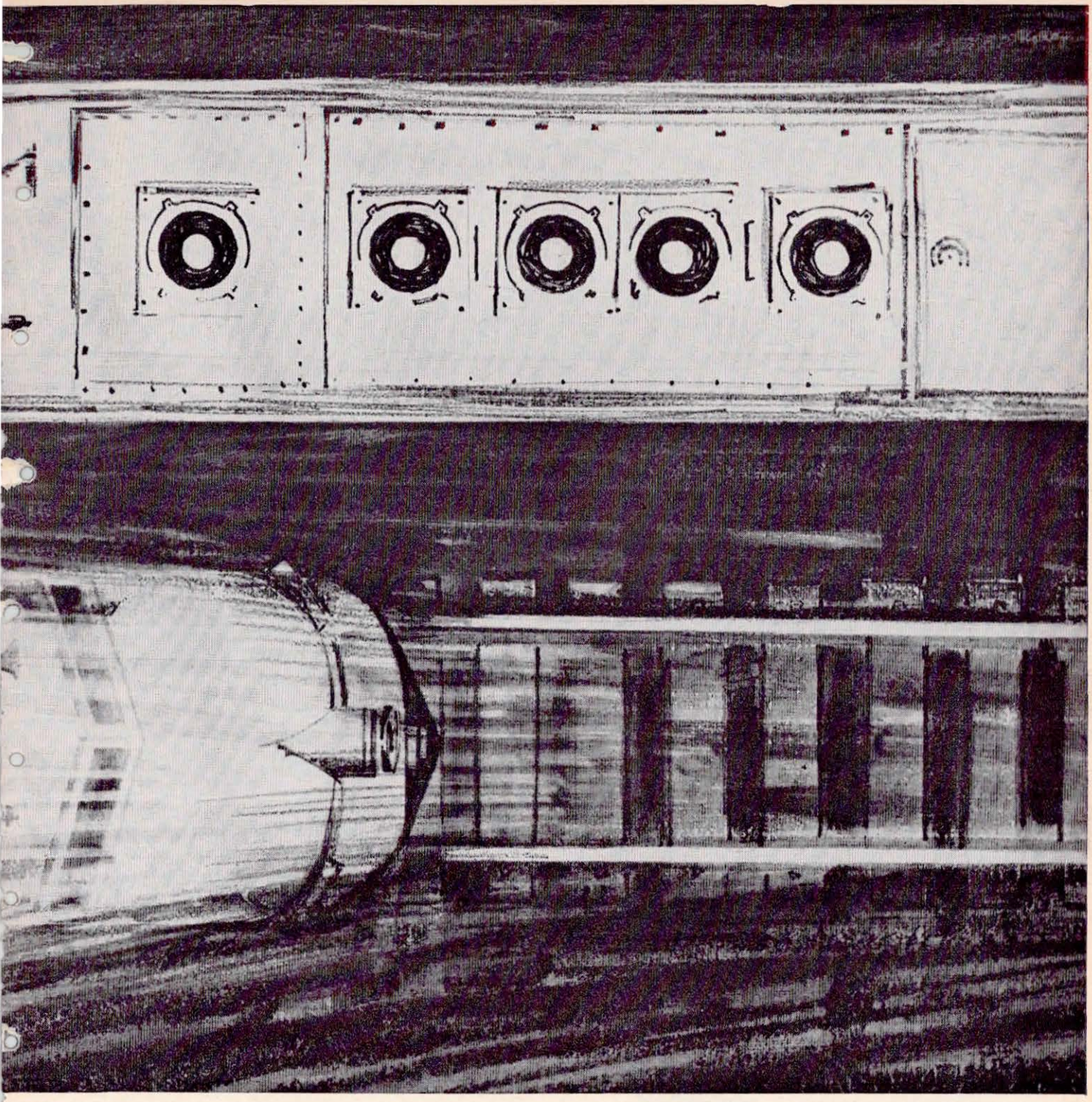


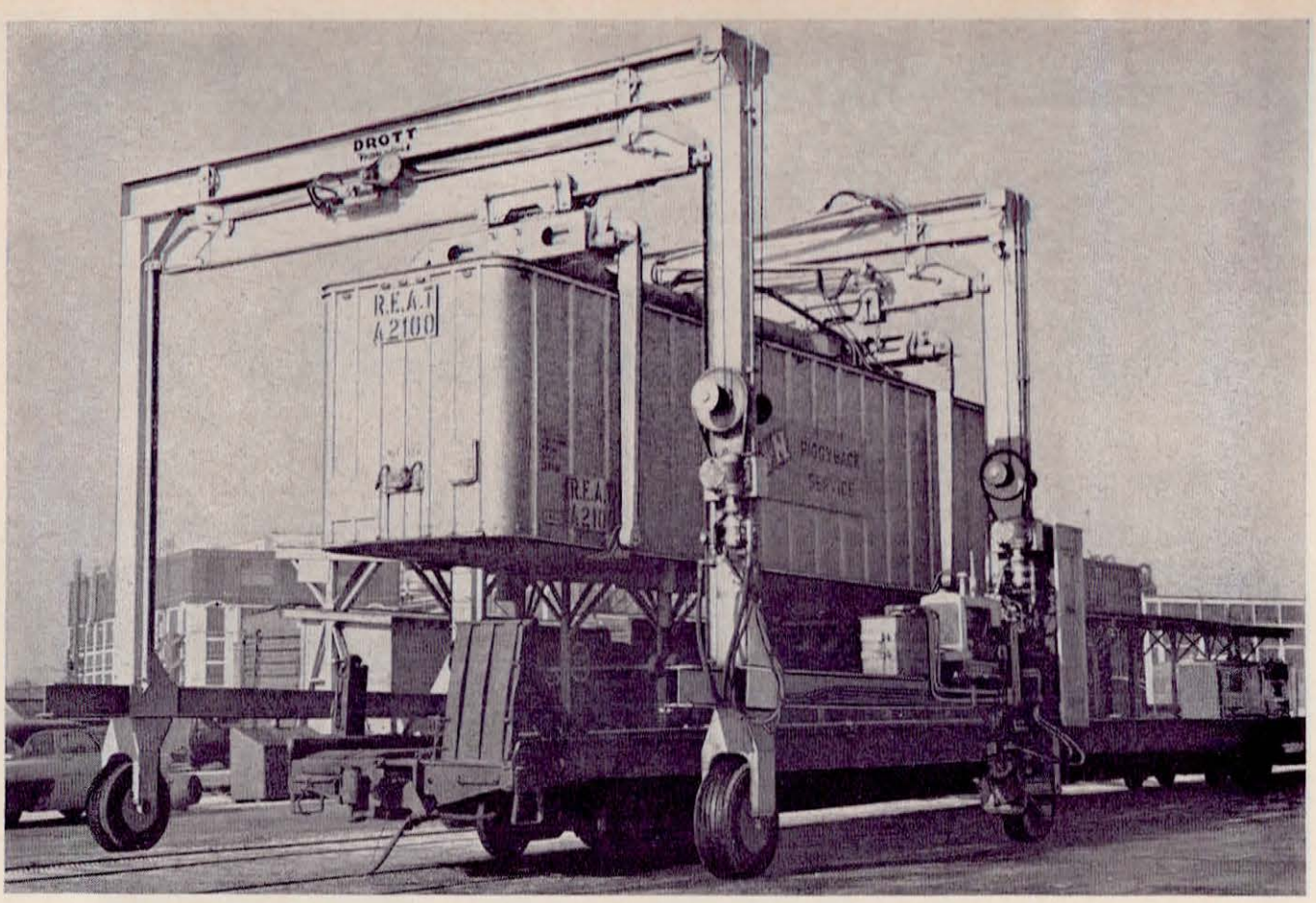
automatic meets on the SP



Each manually controlled meet requires 29 timed and perfectly sequenced operator movements. But the automatic train dispatching system on the Southern Pacific, using a Union TCC, automatically clears signals, checks the progress of every train, and makes meets without any operator movements. The dispatcher is freed from routine movements so he can plan ahead and expedite traffic. When an extra-ordinary move is needed, such as the movement of a work train, the dispatcher can check the track diagrams and route the work train without interfering with regular traffic. If necessary, he can take over manual control by pushing a button. □ The Traffic Control Center at Tucson, Arizona, automatically controls 523 miles of single track with 59 passing sidings between El Paso, Texas and Yuma, Arizona. The automatic system is now being extended 114 miles to Thermal, California. Automatic dispatching will also control 102 miles between Fresno and Bakersfield, California. Since installation of the Union TCC, the Southern Pacific has found automatic train dispatching to be an even greater help than first anticipated. □ Union Traffic Control Centers consolidate CTC for greater efficiency and automatic dispatching. Service is faster and reduced operating costs can pay off the system in just a few years. For complete details, contact our nearest district office.

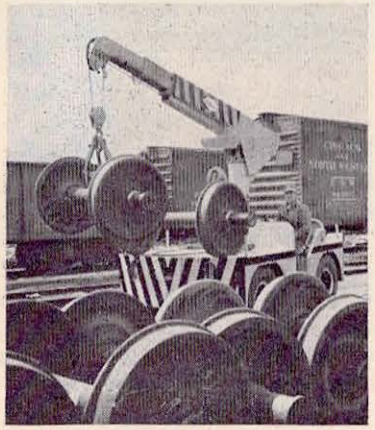
WABCO

UNION SWITCH & SIGNAL DIVISION
PITTSBURGH 18, PA./Westinghouse Air Brake Company



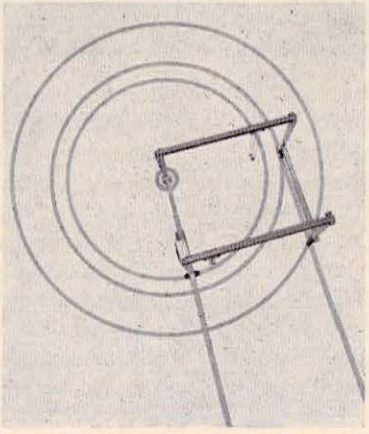
DROTT Travelift® moves trailers, containers to or from flatcars in minutes

Specially designed to speed terminal handling, the all-hydraulic, self-propelled DROTT Travelift loads or unloads piggyback freight units in less than **three minutes.** ■ Available with capacities up to 40 tons, Travelifts perform all functions with sure, safe hydraulic power – propelling, steering, lifting, traversing. You handle trailers, containers and other freight with fluid soft control . . . minimizing chance of damage. ■ All functions are controlled by one man from a single, high visibility platform. From it, he lifts, propels and places loads quickly with minimum effort. ■ DROTT Travelift is adjustable to vary the wheelbase for long loads . . . it straddles both load and flatcar and loads with traversing action . . . independently controlled traversing permits angular spotting . . . airplane-type tires provide high flotation. ■ One of the many models will probably match your operations. If not, tell us about your unusual requirements and we'll adapt a model to fit them.



DROTT Go-Devil®

Capacities: 2,000 lbs, 8,500 lbs, 16,000 lbs ■ 360° constant boom rotation ■ Telescoping boom ■ Large front and side carrydeck ■ Power steering ■ A real time and labor saver around rip tracks and stores areas. We'll arrange a demonstration at your convenience.



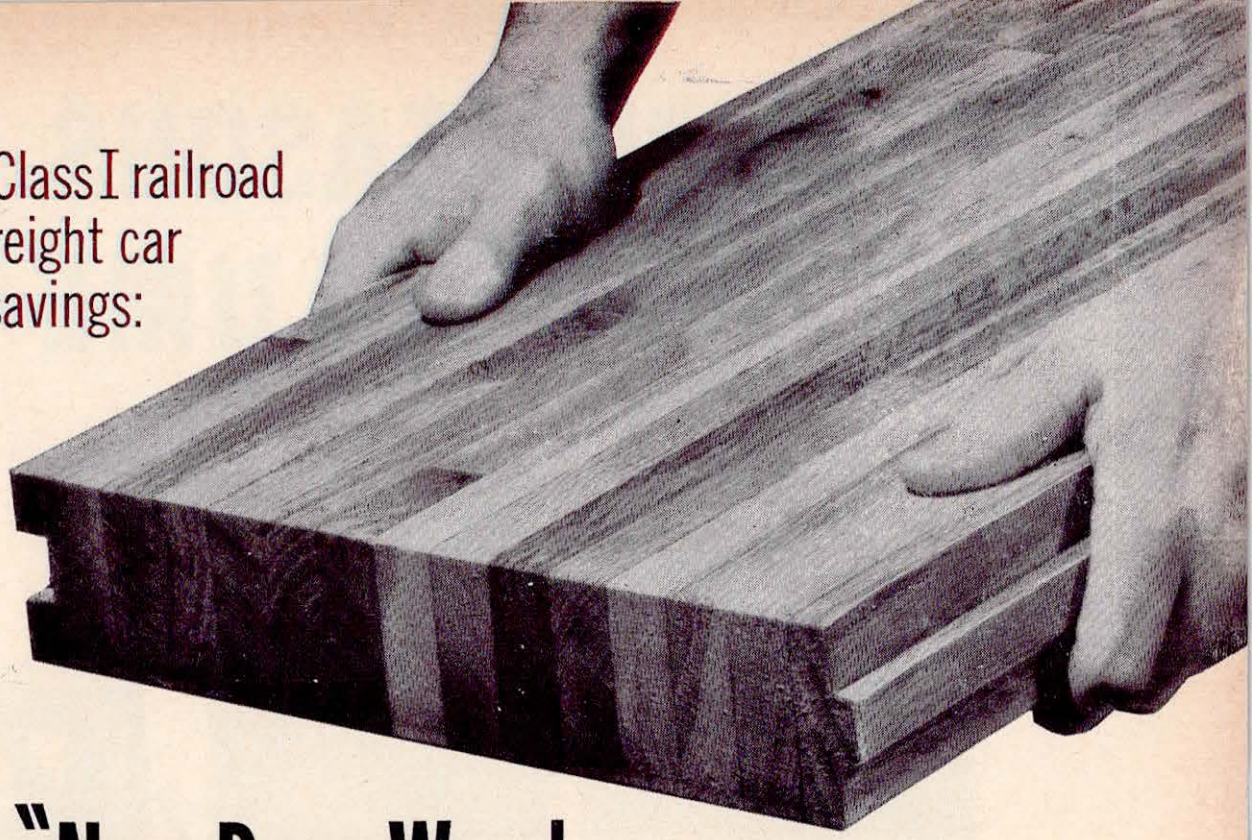
TURNS ON THE SPOT – TRAVEL SPEEDS ARE TRIPLED, TOO

Travel faster, maneuver better than ever before because the new units move at speeds up to 6.9 mph ■ Rear wheels turn 90° ■ You pivot the machine on either front wheel . . . turn on-the-spot.

D-6313A

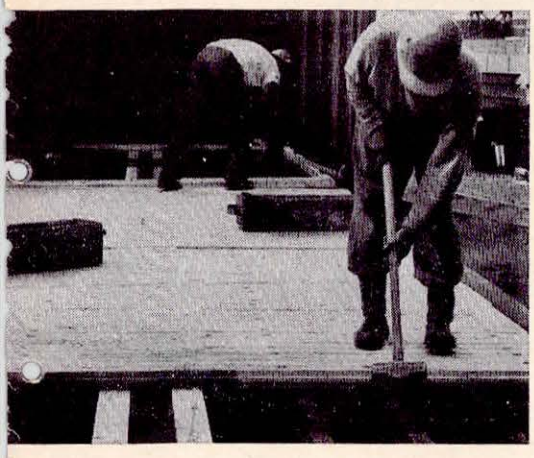
DROTT MANUFACTURING CORPORATION 3126 S. 27th Street, Dept. RA-11, Milwaukee, Wis. 53215

Leading Class I railroad reports freight car flooring savings:



"New Dura-Wood saves $21.95 to $30.93 per car per year"

Careful cost calculations by a leading Class I railroad with years of experience in the use of laminated edge grain flooring proves the superiority and economy of Bruce Dura-Wood over other types of freight car decking.



In the average 40'6" box car, Dura-Wood saves $21.95 per year over nailable steel and $30.93 per year over flat-sawn pine, which requires frequent renewal. In 50'6" box cars and 60' baggage cars the estimated savings with Dura-Wood run as high as $95.76 per car per year.

Easy installation and extra strength permit these unusual economies. Labor costs to install exact-length Dura-Wood boards are 14.5% less than flat-sawn pine, 47.7% less than nailable steel. In durability, Dura-Wood, like nailable steel, outwears pine at least 4 to 1. Dura-Wood has been certified "twice as uniform in strength" by the Wood Technology Laboratory, University of Michigan. It is designed to handle fork lift axle loads to 60,000 lbs. and more, depending on thickness (up to 2⅜").

Dura-Wood is kiln-dried to an average 7% moisture content to control shrinkage. An exterior-type glue is used for superior bonding. Further savings derive from elimination of cargo damage, claims, complaints and lost revenues during downtime for repair.

Only Bruce, world's largest maker of hardwood flooring, could offer such dependable freight car flooring in a sensible price range. Available in lengths, thicknesses, and machining as specified.

Bruce DURA-WOOD®

BRUCE®

LAMINATED EDGE GRAIN FREIGHT CAR FLOORING

A PRODUCT OF E. L. BRUCE CO., INCORPORATED
Memphis, Tennessee

SEND COUPON FOR FULL DETAILS

E. L. Bruce Co. Incorporated
1532 Thomas St., Memphis 1, Tennessee

Please send information on new Bruce Dura-Wood freight car flooring as checked:

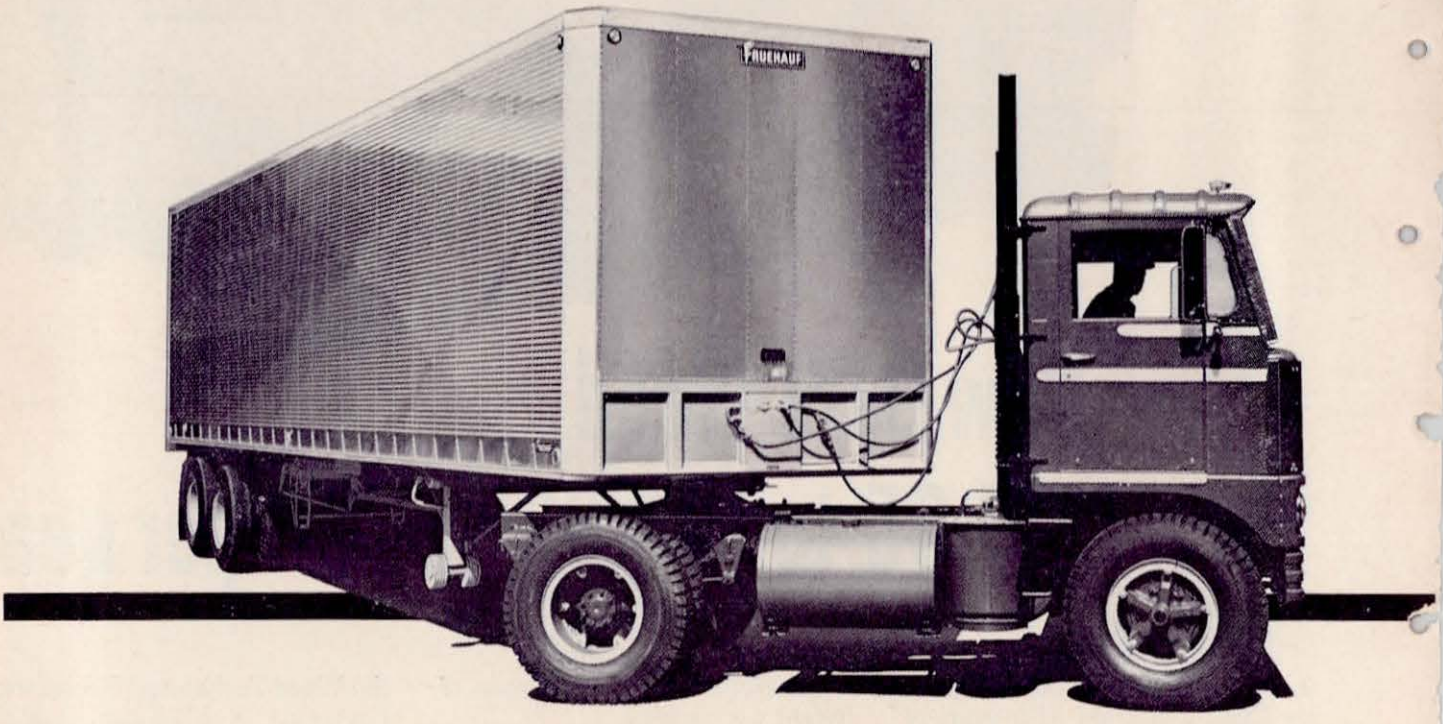
- ☐ Full details on Dura-Wood features.
- ☐ Cost comparisons by Class I railroad.
- ☐ Analysis summary of U. of Michigan strength tests.

Name_____

Company_____

Address_____

TWO GOOD REASONS WHY FRUEHAUF VOLUME★VAN



1. STRONGEST FRONT END IN THE INDUSTRY PROTECTS BOTH CARGO AND EQUIPMENT!

Heavy-Duty Bulkheads*—Integral, heavy-duty bulkhead adds strength, provides recessed protective space for vital brake and light connections while minimizing likelihood of damage and simplifying maintenance.

Sturdy Uprights—Heavy-duty aluminum uprights and corner posts contribute greatly to the overall strength of the front wall.

Impact-Shedding Corner Posts—Solid construction; diagonal-shaped outside to shed impacts; square-shaped inside for maximum cube.

Sturdy Corner Caps—Die-cast aluminum, they resist wear and tear.

Armor-Edged Pick-Up Plate—Reinforced* construction withstands repeated coupling shocks; facilitates pick-up operations.

Flexible Brake Connections—Withdraw into recessed bulkhead when disconnected, minimizing possibility of damage.

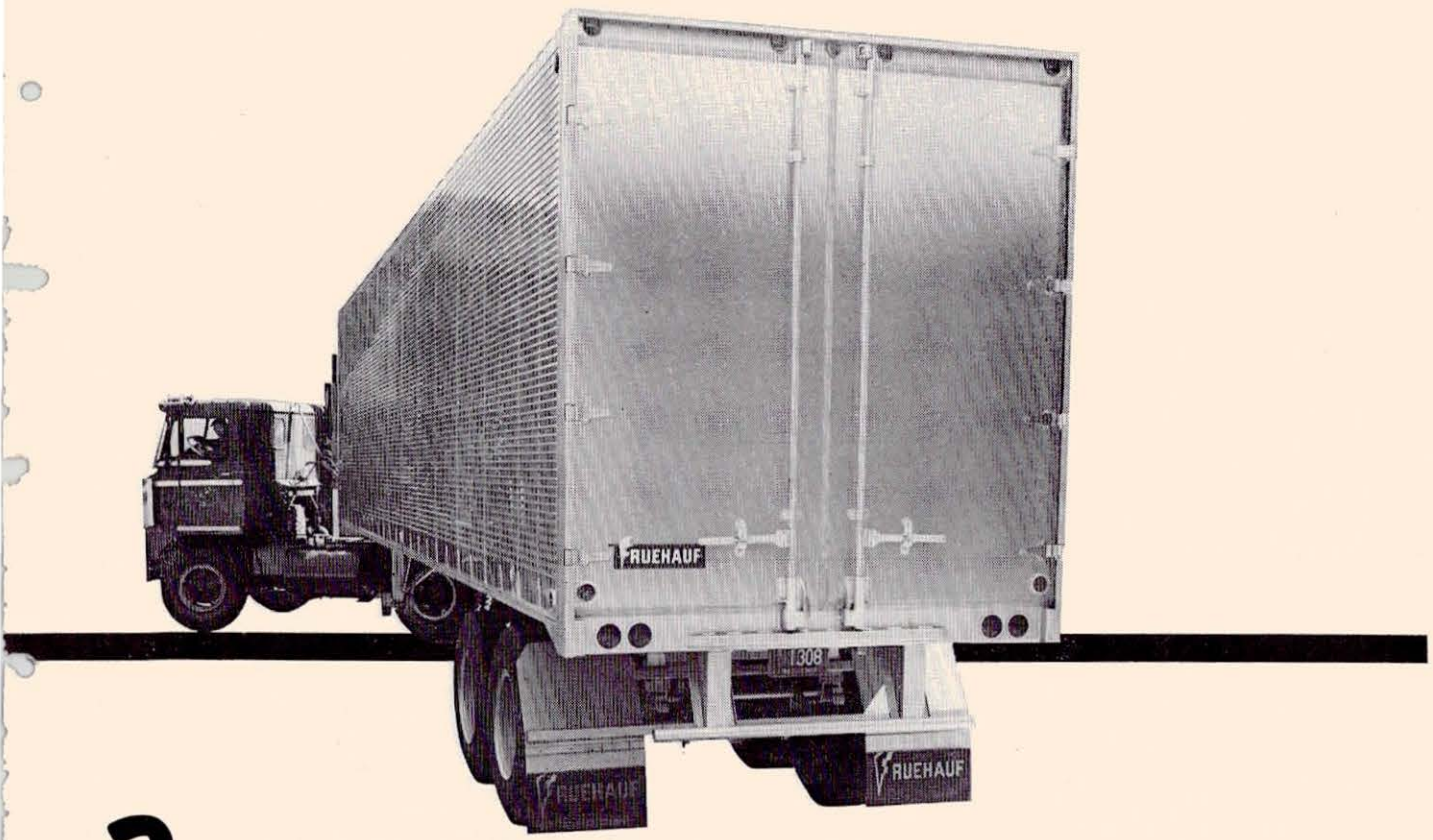
Plastic Protectors* for Brake Connections—Keep out moisture, grime, dust, other contaminants when lines are disconnected in storage, piggybacking, etc.

**Fruehauf Patent Pending*

"ENGINEERED TRANSPORTATION"
—The Key to Transportation Savings

FRUEHAUF TRAILERS

YOU SHOULD USE THE NEW PLUS FOR PIGGYBACKING!



2. ONLY FRUEHAUF DESIGNS SO MUCH STRENGTH INTO REAR END OF TRAILER!

Single Welded Steel Structure—Combines door posts, header, box-section crossmember, ICC bumper and steel bumperettes. Light boxes and electrical circuits are built into structure. Dock protection afforded is unequaled in any other Trailer.

Rear Crossmember—Seven-gauge steel box-section, reinforced with interior steel baffles, is extremely rugged. Deep recess on top receives bottoms of doors in weathertight fit.

Super Antirax* Door Latches—Are stronger, reduce torsional moment, give solid, tightly sealed fit and help stabilize entire rear end.

Lock Flange* Rear Doors—Protecting flange guards the hinged edge of closed door against load thrust. Lock Flange and Antirax latches combine to make this door mounting the strongest in the industry.

Rear Bumpers—New, stronger ICC bumper is constructed of 2½" pipe. Supporting gussets, welded to frame, add rigidity and strength. Dock bumper protects doors, lights and hardware.

• • •

Your Fruehauf representative will give you *more* reasons why Fruehauf Volume☆Vans PLUS Trailers are your best investment for piggybacking operations.

He'll also show you how you benefit from the nationwide availability of Fruehauf parts and service—nearly 80 factory branches strategically located coast to coast in this country and Canada. Give him a ring—he'll meet with you at your convenience.

*Fruehauf Patent Pending

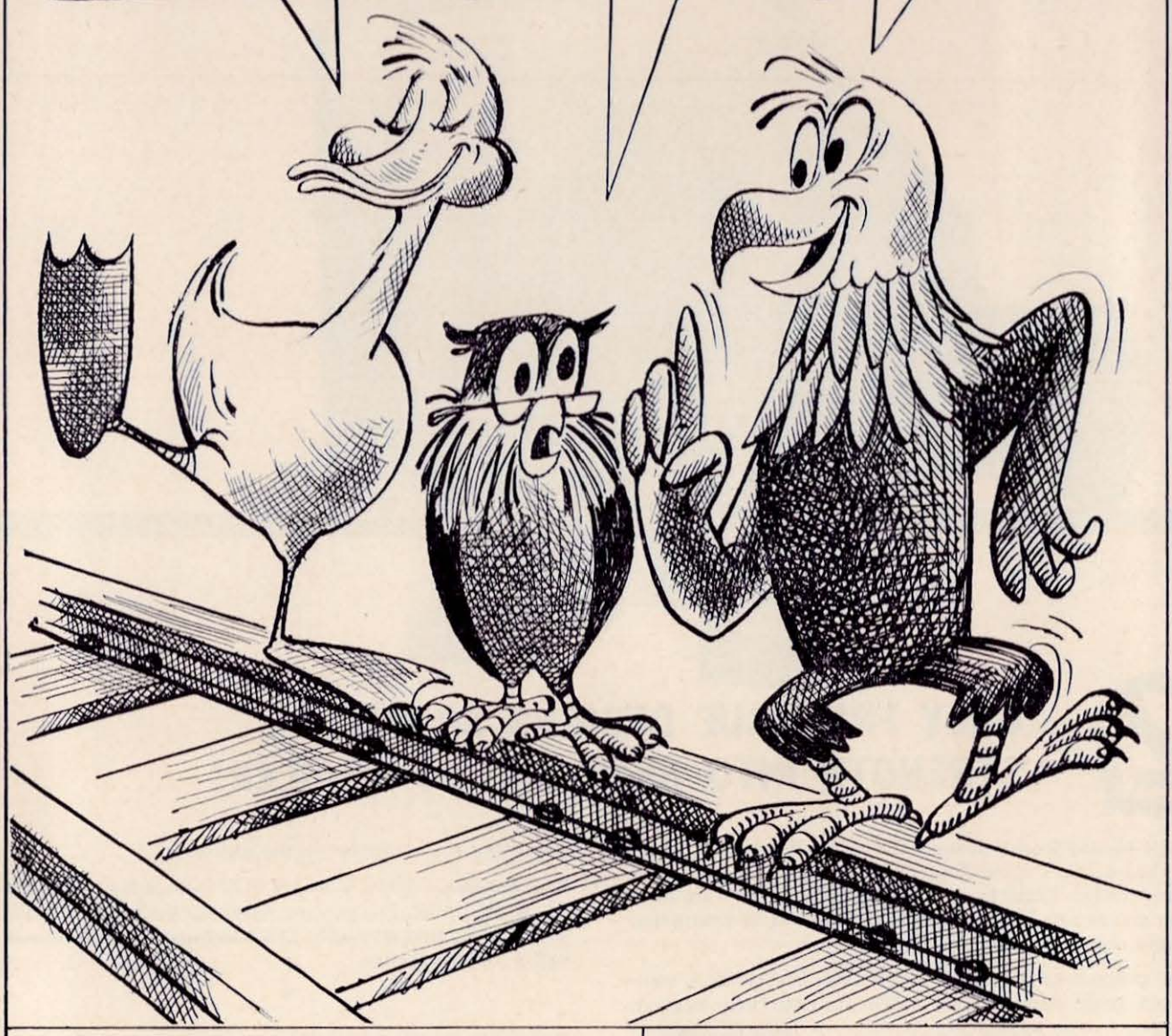
FRUEHAUF TRAILER DIVISION ▪ FRUEHAUF CORPORATION
10953 Harper Avenue ▪ Detroit 32, Michigan

If you think webbed feet are something special, take a gander at Missouri Pacific's and Texas Pacific's new cars. They're really tailored to the job. Air-slide and high cube covered hoppers; DF and compartmentized cars; refrigerated piggyback trailers; mechanical refrigerator cars; insulated box cars; cushion under-frame cars; tri-level auto carriers. No wonder so many outfits ship West-Southwest by Mo-Pac.

WHO?

MISSOURI PACIFIC

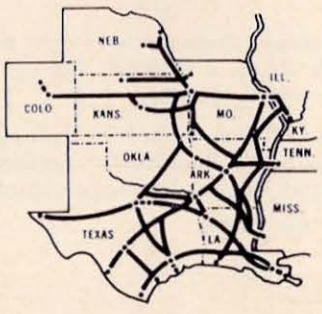
Route of the Eagles, you know ☆ ☆ ☆ ☆ ☆

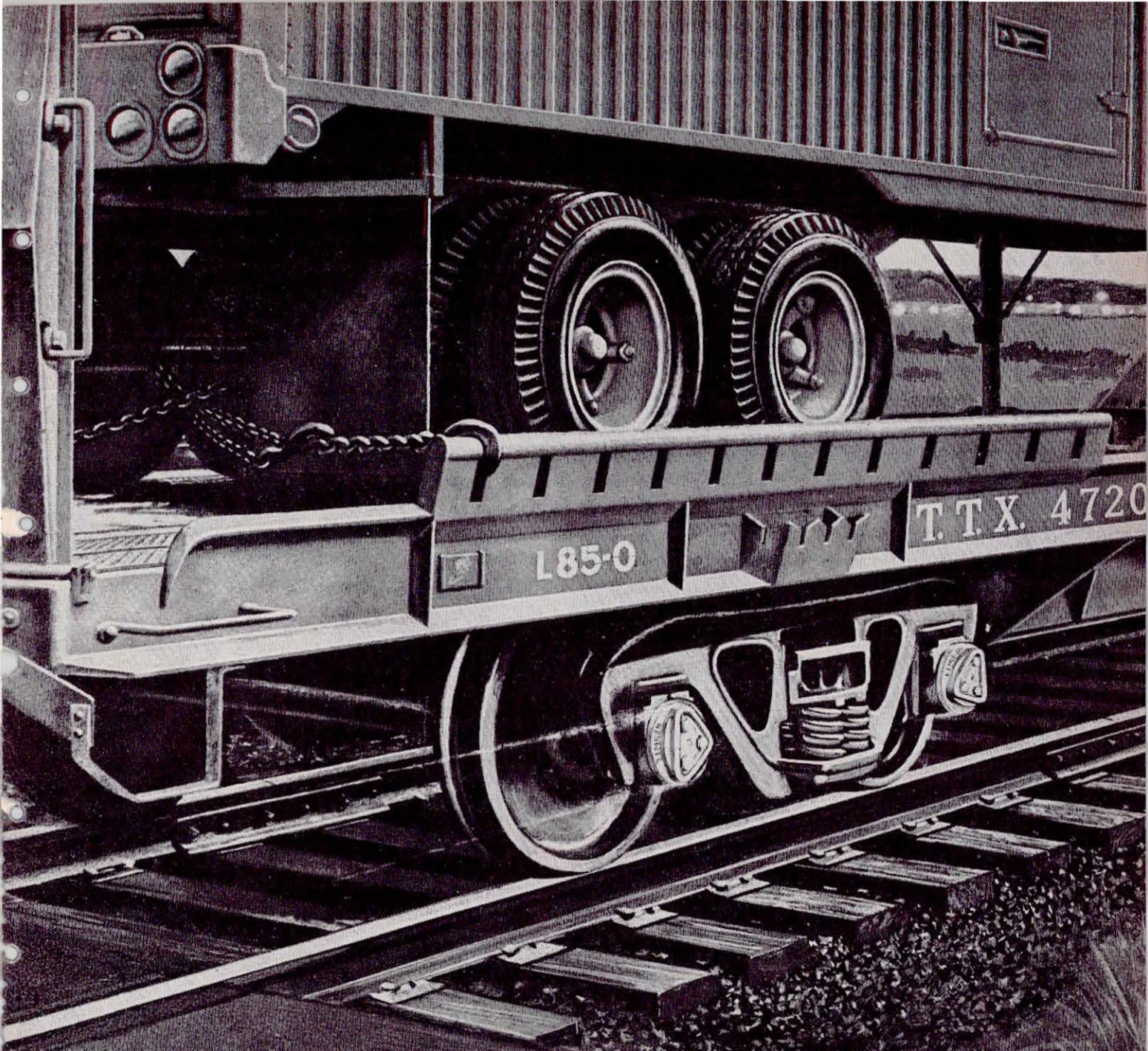


Missouri Pacific's rapidly expanding fleet of specialized cars . . . 3,217 new ones in just the past two years . . . pampers your shipments with kid glove service. No matter how unusual your freight, how big or how bulky . . . if you're shipping it our way, we think we've got the car to get it there. Call your nearest Missouri Pacific or Texas & Pacific Freight Representative.

MISSOURI PACIFIC LINES

TEXAS PACIFIC LINES





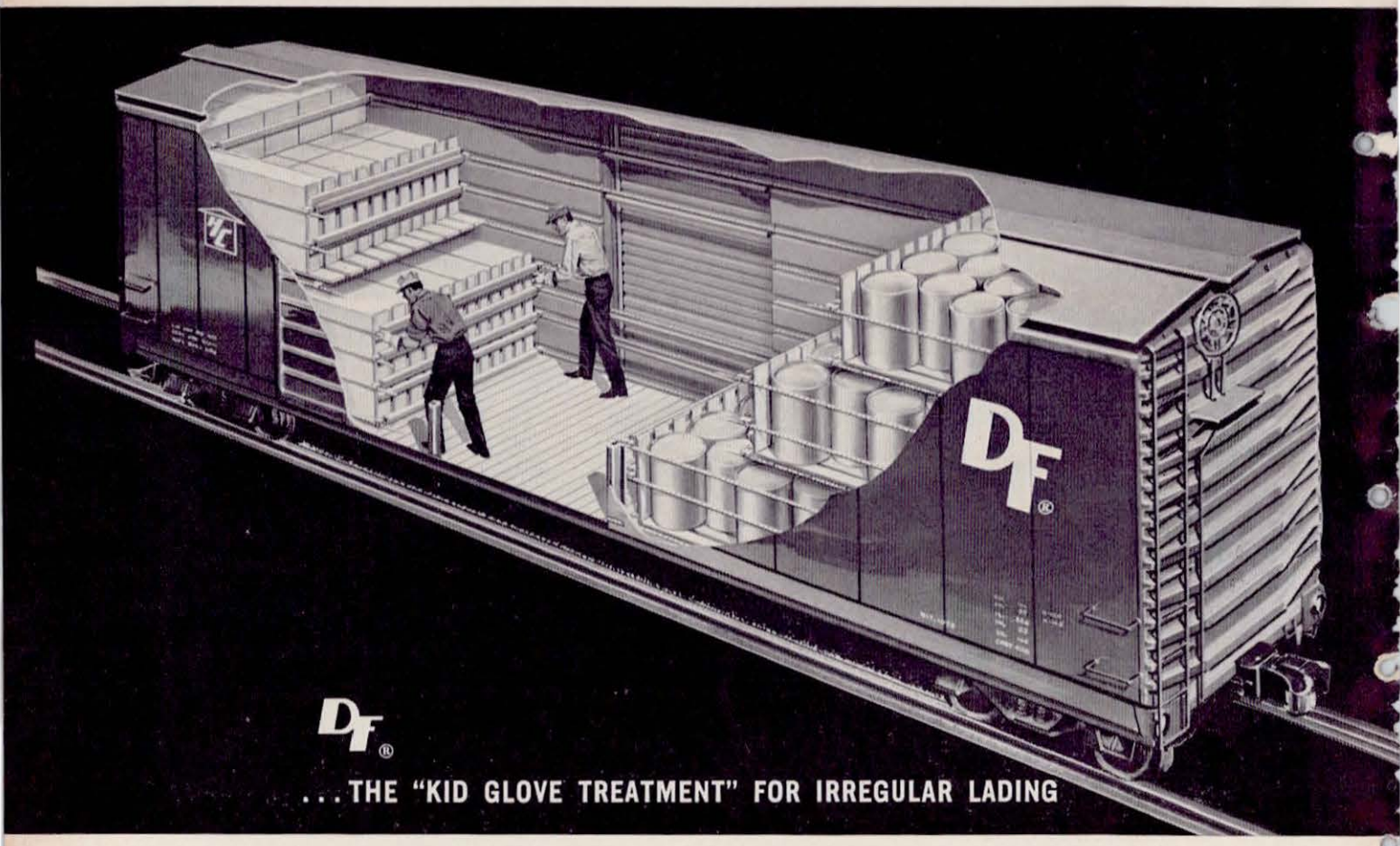
Why this piggyback goes to market on Timken® bearings

Fast, dependable freight deliveries are fundamental to the piggyback service Trailer Train gives its member railroads. Last year, this modern fleet of 13,775 flatcars rolled up nearly 800,000,000 car-miles. Precision-made Timken® tapered roller bearings are on a large share of the cars because they solve the hot box problem—number one cause of freight train delays. How? With dependable lubrication and by practically eliminating friction. In this way, nickel-rich Timken bearings reduce costs for railroaders and shippers. The Timken Roller Bearing Company, Canton 6, Ohio. Also manufacturers of Fine Alloy Steel and Rock Bits.

QUALITY TURNS ON TIMKEN® TAPERED ROLLER BEARINGS

NOW it's 80!

LIST GROWS AS CARRIERS REALIZE

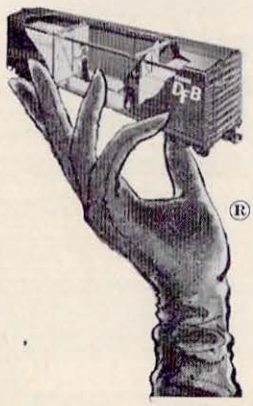


America's leading railroads are modernizing more and more of their cars with Evans DF and DF-B equipment. These cars earn greater revenue . . . are always in demand because shippers appreciate equipment that enables them to load heavier without costly dunnage and with virtually no damage.

Evans DF—America's most popular crossmember device is ideal for double decking and for protecting uneven lading.

Evans DF-B—the one-piece damage-prevention bulkhead, positioned and locked with one lever by one man, is today's fastest, most popular way to brace straight-sided lading. DF-B bulkheads require fewer moves and allow more lift truck room when loading.

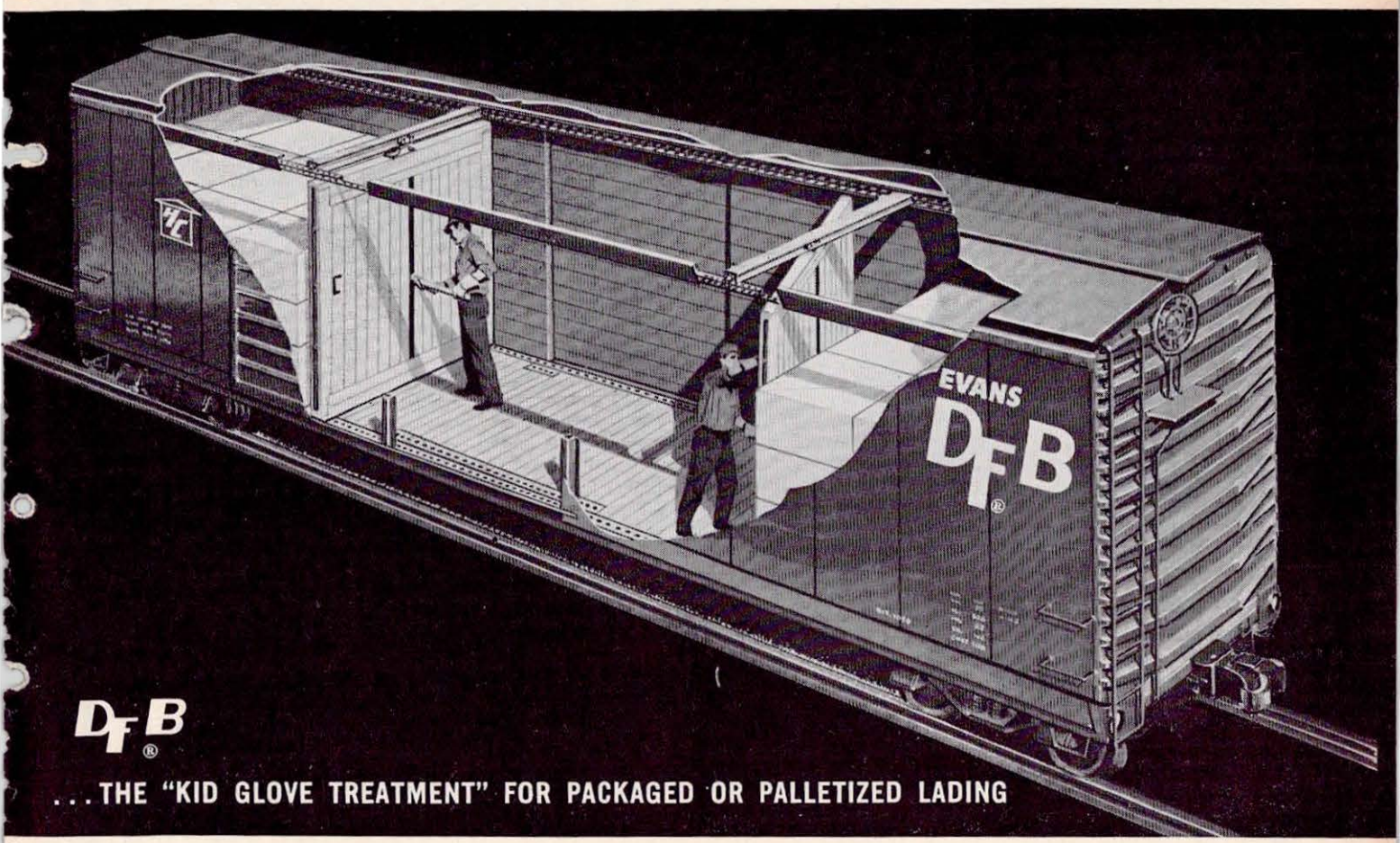
Railroads and their shippers also benefit from Evans' large staff of experienced Loading Engineers, strategically located throughout the country for on-the-spot service. For more information write Dept. A-11, Evans Products Company, Plymouth, Michigan 48170.



SHIP SAFELY WITH THE "KID GLOVE TREATMENT"®

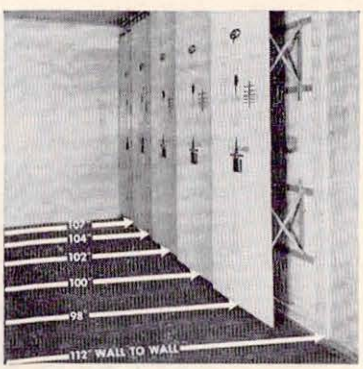
ACL ACY AM. COLLOID CO. ART AT&SF B&LE B&M B&O BETH. STEEL C of NJ CB&Q C&EI CGW CMStP&P C&NW CN C&O CP CLINCHFIELD CRIP D&H D&RGW DT&I D&TSL E-L EVANS PRODUCTS COMPANY FGE GAEX GARX GB&W GC&SF GM&O GN GTW GULF OIL IC IT KCS KO&G L&N LV MC MDT MKT MN&S MP MONON M&StL NKP NP NS N&W NYC NY Chic. & StL NYNH&H NORTH AMERICAN CAR PFE PRR P&GD P&WV PULLMAN RF&P READING REM. RAND RUTLAND SAL SP SSW STL-SF SOO LINE SOUTHERN ST. LOUIS REF CAR T&P UP U.S. ARMY U.S. NAVY WABASH WM WFE WP

UNIQUE BENEFITS OF EVANS EQUIPMENT



DFB®

. . . THE "KID GLOVE TREATMENT" FOR PACKAGED OR PALLETIZED LADING



Evans new "6-position" sidewall fillers reduce car width to prevent side-to-side movement of packaged or palletized lading.

EVANS PRODUCTS COMPANY
PLYMOUTH, MICHIGAN

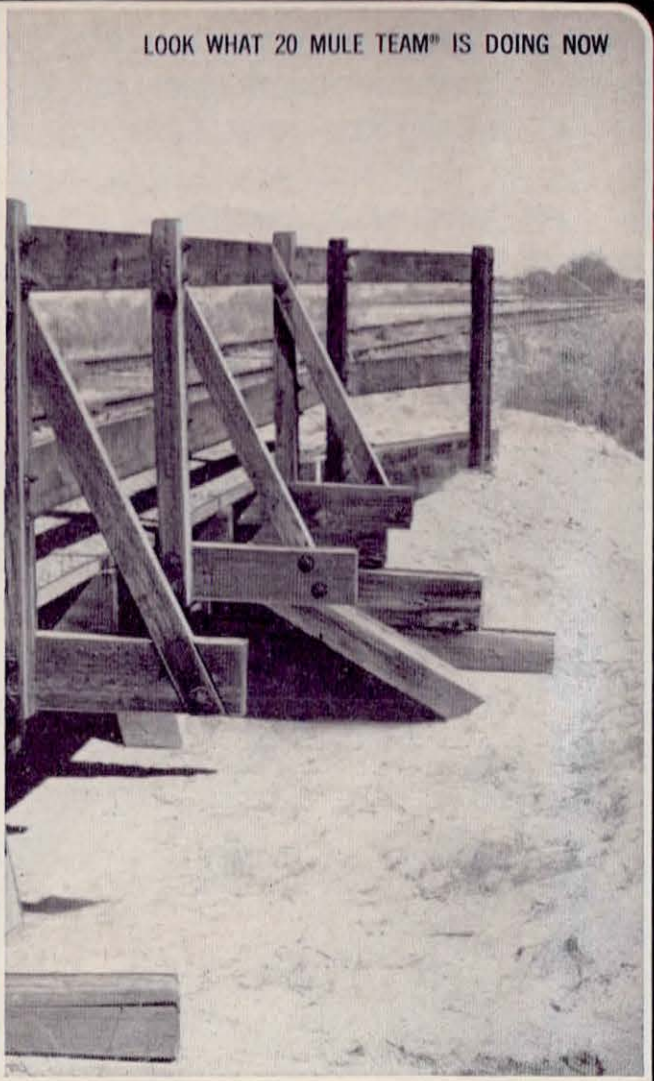
DF-B Bulkhead Equipment, DF® Loader for freight cars and truck trailers, Hydra-Cushion® Underframe, Auto-Loader (TM), XAP Car Devices, Material Handling and Special Equipment Racks, Freight Car Sidewall Fillers.

EVANS

TRANSPORTATION EQUIPMENT DIVISION

In Canada: International Equipment Company Limited, Licensees and Manufacturers

LOOK WHAT 20 MULE TEAM® IS DOING NOW



PROBLEM: HOW TO KEEP ANY AREA COMPLETELY FREE OF VEGETATION...

even hard-to-reach places. The answer is 20 Mule Team® UREABOR®—a safe, highly-concentrated, granular weed killer that's nontoxic, noncorrosive, nonflammable. With 5 UREABOR products, each designed to do a specific job, our herbicide specialists (The Formula Finders at U. S. Borax) will study your local weed, soil and weather conditions and recommend the right **UREABOR** product for your needs. Convenient? With our granular material, there's no water to haul, no mixing, no time-consuming spray equipment preparation. U. S. Borax furnishes specially-designed spreader equipment: You have a choice of manual PCB spreaders for hard-to-reach areas; power-driven equipment for both on-track and off-track road beds and rights of way; under bridge and trestle power spreaders; even an attachment for helicopters to cover rough terrain where fire hazards exist. With the widest experience, and a total of 16 soil sterilants, The Formula Finders are ready to help you cut your costs and clear your mind of all vegetation problems. Consult your chemical distributor. Or write today. U.S. BORAX, RLWY DEPT., 3456 PETERSON AVE., CHICAGO 45, ILL.

U.S. BORAX

ICC calls cushioned cars safe

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"We see no merit, worthy of note, in the exceptions, having considered them singularly and collectively, and on all points essential to the determination of this proceeding, we agree with, and subscribe to, the report and order of the examiner."

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Generally, the petitioning unions contended that various features of the design, especially the greater-than-conventional distance between cars coupled together make Hydroframe-60 unsafe. Considerable attention was given in the proposed report (which the Commission made an appendix to its own brief decision) to the alleged violation of the end-of-running-board rule. There the examiner pointed out that an interpretation of that rule, which might well be relied on to clear Hydroframe-60 was issued by the Commission's Bureau of Safety in 1940 to clear such cars as those equipped with Duryea underframes. The interpretation permitted required distances between ends of longitudinal running boards to be determined by measurements taken when the end sill is "in full buff position."

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Keeping tabs on radios

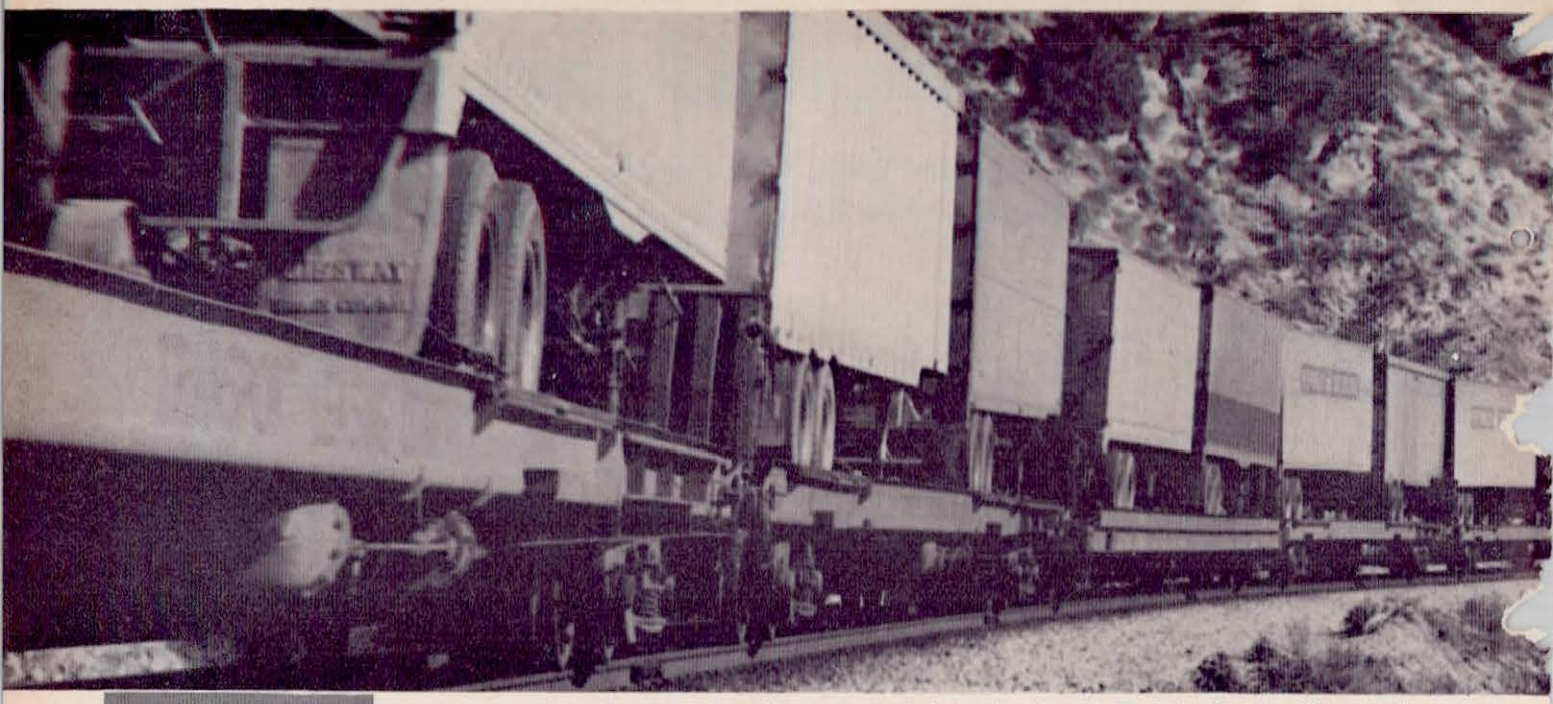
Keeping track of 300 mobile radio sets for maintenance purposes may be difficult. And when the 300 radios are operating over 1,500 miles of line or more, the task of notifying four radio maintenance shops can be staggering.

Denver & Rio Grande Western, however, solved this problem by installing a centralized control system whose key component is a preventive maintenance board at its Denver office.

"Here," according to the D&RGW Radio Engineer, E. H. Musgrove, "our headquarters office has the responsibility of maintaining up-to-the-minute records of status changes of all locomotives, cabooses, vehicular or base station radio equipment. All radio-equipped units are identified on a large board, with colored tags indicating the last inspection date, outage information, installation records, etc.

"All information regarding radio operation is directed to the control center. Analysis of the situation is made and, in the case of radio trouble, the next shop in line with the train's progress is notified by phone, and arrangements are made to correct the trouble on the train's arrival at that station. Should a unit be missed on its inspection date, the unit is located by the Denver operator and the appropriate radio shop alerted that the train with this unit is due to arrive at such and such a time, and the shop takes whatever necessary steps to effect the inspection."

Mr. Musgrove said other benefits are derived from this system of record keeping. "Should a communication unit repeatedly give trouble, this fact is known and the unit will be put over the bench with considerably closer attention to 'bug' type repairs. Similarly, if a mobile unit repeatedly gives trouble, this fact is known, and the engine, caboose or whatever will be closely inspected as the source of trouble, rather than the communications unit itself."



A Santa Fe train, powered by six diesel-electric locomotive units, shown

PLANS I II III IV V

SPECIAL REPORT

Piggyback's five keys to prosperity

TOFC carloadings may exceed 800,000 in 1963 and there are solid reasons for optimism about 1964 and the years beyond.

By year's end, TOFC carloadings will total almost 800,000. Given even a slight boost from the current pace in December, loadings could surge past the 800,000 barrier, just as they pushed over 700,000 for the first time in 1962.

The carloadings increase—now estimated at between 90,000 and 100,000 for the full year—pegs piggyback's 1963 growth rate at about 13.5%. That's just about the same rate railroads posted in '62—and it hints strongly that TOFC can maintain its steady and spectacular climb, even though the rate of gain has to be measured against a higher base each year.

• **Year of trial.** In many ways, however, 1963 has been a year of trial for TOFC—a year in which even greater growth may well have been held back by the uncertainties created by Ex Parte 230, the ICC's piggyback rule-making proceeding.

The trial still isn't over. Railroads, strongly opposed to the rules originally proposed, are generally satisfied with the recommendations made late in August by ICC Examiners Harold P.

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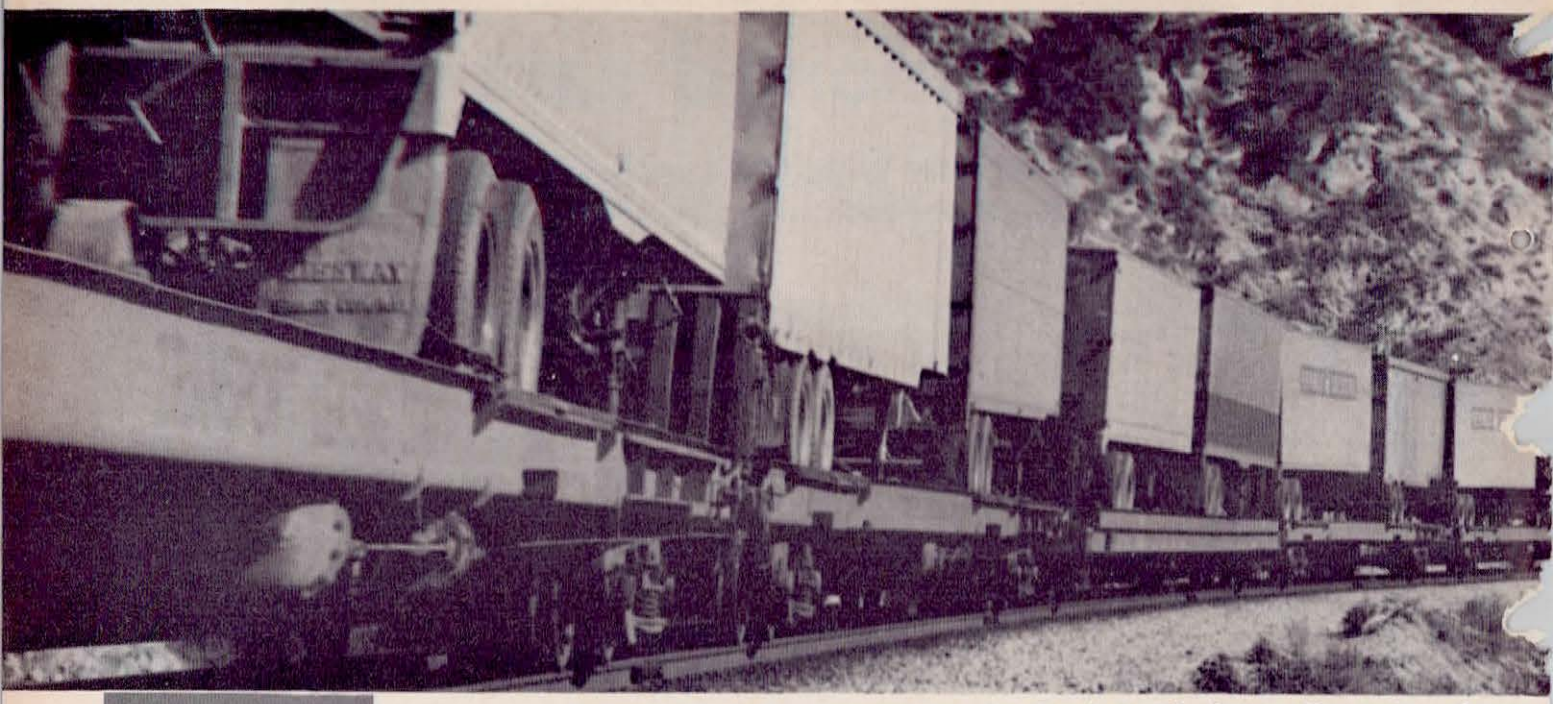
"Here," according to the D&RGW Radio Engineer, E. H. Musgrove, "our headquarters office has the responsibility of maintaining up-to-the-minute records of status changes of all locomotives, cabooses, vehicular or base station radio equipment. All radio-equipped units are identified on a large board, with colored tags indicating the last inspection date, outage information, installation records, etc.

"All information regarding radio operation is directed to the control center. Analysis of the situation is made and, in the case of radio trouble, the next shop in line with the train's progress is notified by phone, and arrangements are made to correct the trouble on the train's arrival at that station. Should a unit be missed on its inspection date, the unit is located by the Denver operator and the appropriate radio shop alerted that the train with this unit is due to arrive at such and such a time, and the shop takes whatever necessary steps to effect the inspection."

Mr. Musgrove said other benefits are derived from this system of record keeping. "Should a communication unit repeatedly give trouble, this fact is known and the unit will be put over the bench with considerably closer attention to 'bug' type repairs. Similarly, if a mobile unit repeatedly gives trouble, this fact is known, and the engine, caboose or whatever will be closely inspected as the source of trouble, rather than the communications unit itself."



A Santa Fe train, powered by six diesel-electric locomotive units, shown

PLANS I II III IV V

SPECIAL REPORT

Piggyback's five keys to prosperity

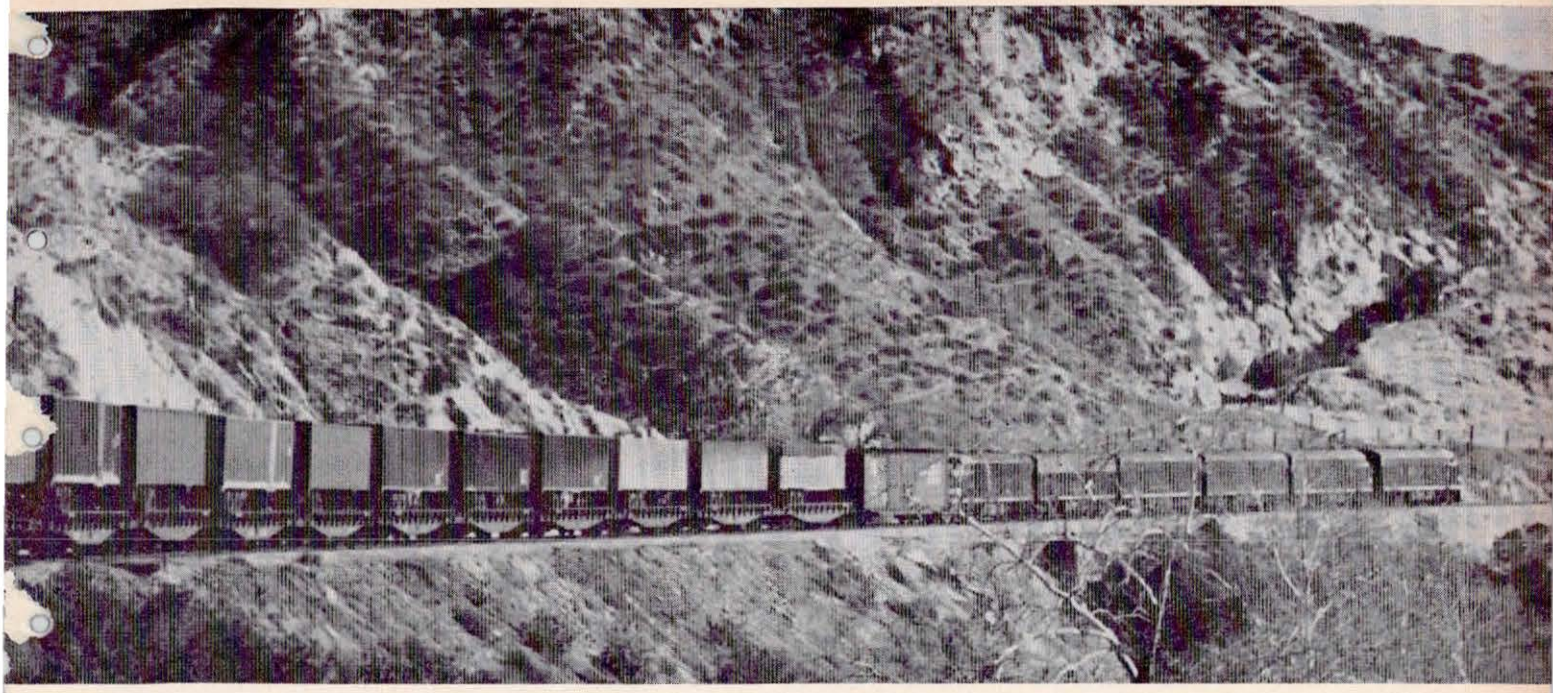
TOFC carloadings may exceed 800,000 in 1963 and there are solid reasons for optimism about 1964 and the years beyond.

By year's end, TOFC carloadings will total almost 800,000. Given even a slight boost from the current pace in December, loadings could surge past the 800,000 barrier, just as they pushed over 700,000 for the first time in 1962.

The carloadings increase—now estimated at between 90,000 and 100,000 for the full year—pegs piggyback's 1963 growth rate at about 13.5%. That's just about the same rate railroads posted in '62—and it hints strongly that TOFC can maintain its steady and spectacular climb, even though the rate of gain has to be measured against a higher base each year.

• **Year of trial.** In many ways, however, 1963 has been a year of trial for TOFC—a year in which even greater growth may well have been held back by the uncertainties created by Ex Parte 230, the ICC's piggyback rule-making proceeding.

The trial still isn't over. Railroads, strongly opposed to the rules originally proposed, are generally satisfied with the recommendations made late in August by ICC Examiners Harold P.



near Esperanza, Calif., as it speeds east with a cargo of high-priority piggyback loads.

Boss and Richard S. Ries (who tossed out virtually all of the harsh restrictions in the first set of rules). Still to come, however, is the decision of the full Commission—which may or may not go down the line for the examiners.

The ICC notice setting Dec. 10 for oral argument in the case points out that the rules first proposed "reflected the concept of equal charges for the same service for all using TOFC service. All such rules were predicated upon this basic idea and were designed to promote and foster coordinated TOFC service. . ." The examiners' report largely rejected this concept. But, the ICC notice adds, study of exceptions to the report and replies "discloses the need for further development of the basic concept embraced in those rules to determine whether it is desirable or possible of implementation."

● **The boom continues.** While there's a certain amount of concern about the Commission's eventual action, most railroad men are talking confidently of a continuing boom in TOFC. During '63, many roads have chalked up piggyback growth far in excess of the industry average. Reports of 20% to 25% increases are not uncommon, and one major road checks in with a revenue gain of better than 33%.

There are solid reasons for optimism for '64 and years following. TOFC sales efforts are being intensified—and new markets are opening up. Quality of service is showing steady improvement. Millions of dollars are being poured into flat-car and trailer-container equipment. More millions are going for enlarged, more efficient piggyback terminals.

One of the most significant indicators of TOFC progress is the broad scope of the services now offered—and the belief, shared by a number of piggyback sales officers, that the future will bring continuing refinement of present services and perhaps even the setting up of new TOFC plans.

● **All plans show growth.** The need for service flexibility—recognized by Examiners Boss and Ries in their report—shows up clearly in a Railway Age survey of major TOFC roads. Each of the five piggyback plans is showing the greatest rate of growth in some area—and each of the five has strong backing as the plan that holds the greatest potential for future growth.

Assuming the ICC's final words on Ex Parte 230 don't depart in major degree from the examiners' recommendations, 1964 should bring major expansions in Plans II, II½ and V, with somewhat lesser gains for Plans III and IV. There's a good chance, most observers agree, that total TOFC carloadings will show a greater rate of gain in '64 than they did in '63—an increase in the 15%-to-20% range would come as no surprise.

There are, however, a few uncertainties which will be hanging around even after Ex Parte 230 is wrapped up. Beginning Dec. 1, Teamster negotiators will sit down with trucking-company bargainers—and the outcome could have a major effect on TOFC's fortunes. Teamster demands, if granted, would almost certainly bring on a round of motor-carrier rate increases. At the same time, other union demands are aimed squarely at piggyback—at making it more expensive and, therefore, less attractive for truck lines to use TOFC.

● **Gains for containerization.** Another uncertainty—a perennial one—is the future of containerization, a development that's been on the brink of breakthrough for several years. And hasn't quite made it. Some observers think '64 may be the year—because of the increasing emphasis on international trade and on the further streamlining of distribution processes in the United States. There's no doubt that interest in containerization is on the upswing—and, by this time next year, it's a good bet that many of the equipment-interchange and equipment-compatibility problems may be well on toward solution.

Piggyback's difficulties, though, somehow tend to fade when put alongside the opportunities it provides for imaginative merchandising of railroad service. All five plans now offered are doing a good job, under given sets of circumstances. All five are contributing to the improved performance which the industry generally is showing.

Examiners Boss and Ries called piggyback "one of the most dynamic formulas for transportation of freight this country has ever seen." The record, they said, "is replete with shippers' evidence of satisfaction and approval of TOFC service. The bounds of this service and its total effect on transportation are as wide and long as the imagination of the men who are providing this service to the nation."

The railroads would agree. Wholeheartedly.

TOFC: 10 YEARS OF STEADY GROWTH ►

TOFC: 10 years of steady growth

Piggyback has helped the railroads, the shippers and freight forwarders. The number of satisfied users continues to grow as new services are offered and new TOFC territories open up.

Probably not one road among the more than 60 now offering piggyback service can look back and say "TOFC saved us from bankruptcy."

TOFC isn't that big. Not yet. But, almost without exception, railroads providing piggyback service are watching a steady climb in TOFC tonnage, in number of trailers handled, in revenues, in TOFC carloadings.

The reason: Users like piggyback—and the number of satisfied users continues to grow, as new services are offered, as new territories are opened up to TOFC.

Piggyback has captivated the freight forwarder—U.S. Freight is shipping 35% to 40% TOFC now and the percentage could eventually run as high as 70% or 75%. Individual shippers and shipper associations have found piggyback their most economical, most efficient way to distribute their products. Railroad sales forces have hustled—perhaps it's been the challenge of something new to sell, because top sales officers are finding even their old-timers out selling like youngsters trying to make a reputation.

● **TOFC: Story of growth.** In any event, piggyback—hardly 10 years old from a practical standpoint—has been the railroad growth story of the decade. Item: No other form of traffic has gained 13.5% in the past year, unless it's new-automobile traffic, which stemmed from TOFC beginnings two or three years ago.

Railroads have a clear board from two Interstate Commerce Commission examiners to develop piggyback in flexible fashion, to meet shipper needs as they arise. They stand on the verge of a breakthrough which will permit interchangeable use of standard trailers and containers. They face a renewed emphasis on international trade which will make TOFC's coordinated services more vital. They're opening up new marketing areas for piggyback—especially in the area of perishables shipments. They're getting, from rail carbuilders and trailer manufacturers, equipment that fully meets the changing needs of TOFC. And they're finding the equipment easier to come by, either through outright purchase or through lease from an organization such as Xtra or Berman Leasing or REA Express' leasing operation.

● **Problem: Equipment supply.** For more than a few traffic officers, 1963 was a happy-sad year in piggyback: They saw their operating departments running the wheels off their TOFC equipment—and there still wasn't enough to go around.

Judging from indicated spending plans, however, equipment problems should be eased in '64. Both railroads and forwarders are going heavily into trailer and container acquisitions. And the big flat-car owner—Trailer Train—will have more than 16,000 cars with delivery of the latest authorized order (and that's about twice the car ownership of Trailer Train just two years ago).

More and more cube

So far as shippers, truck lines and forwarders are concerned, orders will pile up for trailer equipment—and the higher the cube, the better. Clipper Carloading, for example, has just ordered a fleet of 36-foot trailers (to take advantage of tariff provisions and make maximum use of equipment) which go almost to the high-cube limit—drop-frame units with kingpin placed just 18 inches from the front of the trailer. Clipper's next move: To obtain trailers with landing gear mounted under the drop-frame part of the unit, to permit still more cube in the trailer.

● **All plans grow.** With railroads, truck lines, forwarders and shippers all doing their bit for piggyback, how is business shaping up? Good and getting better, across the board—Plans I and V in conjunction with truckers, Plan II which railroads run wholly, Plans III and IV which were developed to fill needs of forwarders, shippers and shipper associations.

Plan II and its modifications seem to be picking up new support—and this is coming as a surprise in some quarters, where coordinated service may have been the aspect of piggyback that got the most emphasis.

Santa Fe, Union Pacific and Great Northern, among others, have seen Plan II (and II½, in UP's and Santa Fe's case) pick up. A number of other lines—among them Pennsylvania, Katy, Seaboard, and Western Pacific—are experiencing similar top-rated growth in the all-rail trailer-on-flat-car operation.

Why is Plan II growing? As one high-ranking Plan II road puts it, the operation grows because "it has greater flexibility and economy for both shipper and carrier." Or, as another heavy Plan II carrier notes, "we have control. The shipper has a true single-carrier responsibility from beginning to end. We've found that shippers like that kind of undivided responsibility."

● **Back to Plan II?** At least one western-line piggyback sales officer sees the TOFC cycle turning back toward Plan II "because of pressures on Plan III, which was originally predicated on a two-way movement for the shipper. Now the shipper leases trailers and goes one-way. It's up to the railroad to get the trailer back. And as long as we're doing this, we might as well make the rate attractive enough and handle the movement Plan II."

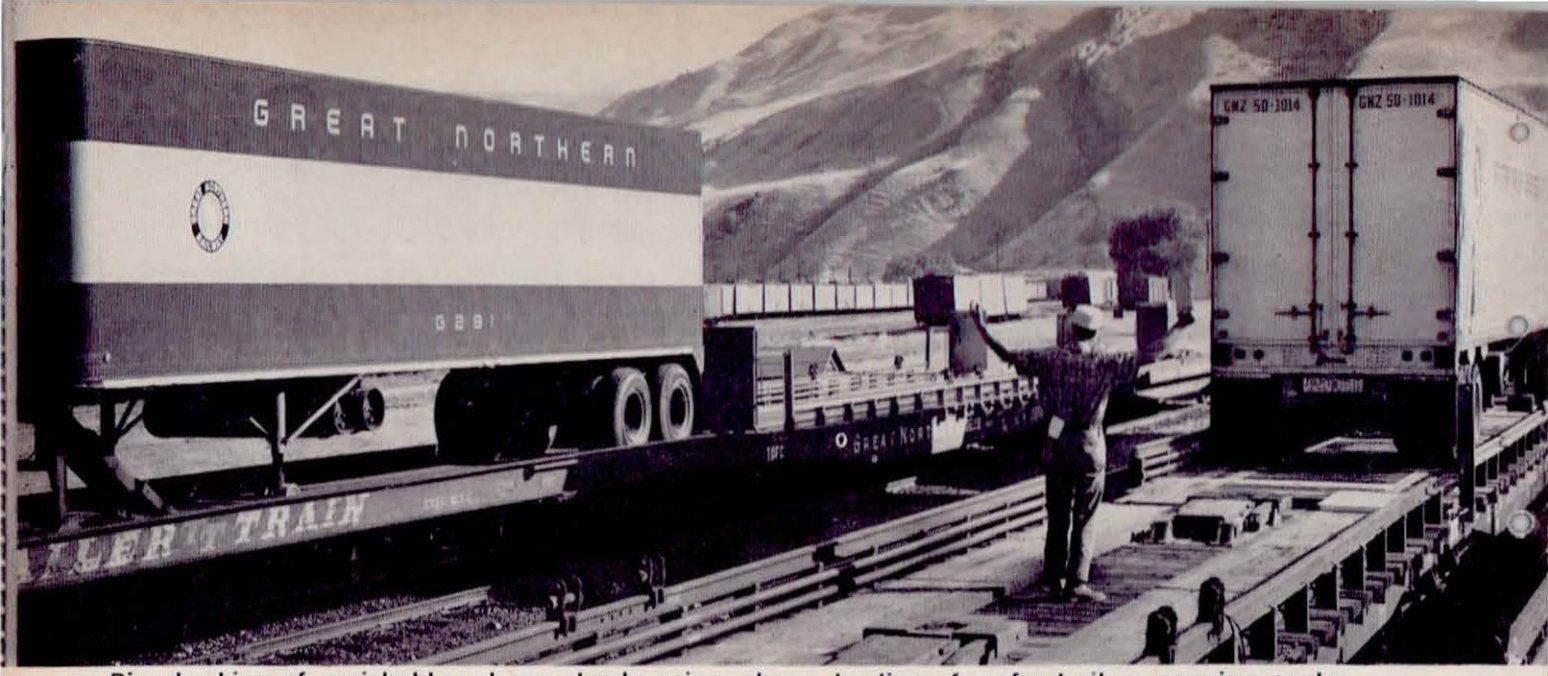
Not all roads would agree with this philosophy. Louisville & Nashville, for example, finds its Plan III growing fastest—because of "better rates" and the favorable report turned in by the examiners in Ex Parte 230. For Seaboard Air Line, both II and III are moving ahead rapidly: "These plans are the most popular with shippers since they offer the greatest savings to the shipper with a complete and dependable service."

Plan IV development has been a bit spotty—but it's doing extremely well for several roads, including Santa Fe and Burlington. One big Plan IV road has a simple explanation for the operation's growth: "Forwarders have put all their box-car traffic into Plan IV. They get a desirable rate, they're able to use high-cube trailer equipment and they're able to load trailers in delivery order."

● **Diversion: Still a problem.** Just a few years ago, such talk of diversion of box-car freight would have been accompanied by a pained expression—but traffic men have come to take a somewhat different view of the situation today. "Diversion is still a problem," says one western freight traffic manager,

C&NW Proviso Plaza piggyback installation can handle 700 trailers a day. Installation cost was $1 million.

B&O's new 40-foot aluminum highway trailer vans being handled by one of the railroad's mobile cranes.



Piggybacking of perishables shows steady gains; above, loading of reefer trailers carrying apples.

"but we're making rates now based on sound practice and competitive situations. If we were to protect the box-car rate, we'd just be foregoing business."

Another view on TOFC pricing comes from E. W. Wright, Baltimore & Ohio's general manager-trailer service. Piggyback, he declares, "is an expedited service and should be priced accordingly. We should be selective about the traffic we go after. There are a great many commodities which will and should remain in conventional railroad box-car service. However, somewhere around 10% or 15% of all intercity traffic is susceptible to piggyback handling if appropriate service and pricing is made available to our customers."

Many roads, as piggyback's development has progressed, have found great new opportunities opened up—partly because of the variety of TOFC equipment on the market and partly because of the variety of flexible services piggyback permits.

In the equipment area, probably the most significant development has been in the use of refrigerated trailer-container equipment. Santa Fe, for instance, put in new rates for piggybacking perishables in mid-1962, found '63 to be its best year to date on perishable traffic—and is hoping for still further gains next year (gains which will bring in new revenues and, at the same time, produce a better balance of loads between the Midwest and the Pacific Coast). Union Pacific has had similar experiences. Its acquisition of mechanically heated-refrigerated trailers, UP says, "enabled our entry into the meat and produce transportation field on a rather large scale [and] has resulted in a tremendous rise in volume."

• **Marketing opportunities.** Marketing services made possible with TOFC seem endless. Tariff provisions can be found to cover almost any arrangement of equipment provision, loading and unloading. Some roads have set up storage-in-transit provisions applying to piggyback. At least one carrier has a flexible TOFC-box car transit arrangement under which a shipper, on a through rate, can move his freight to the storage point via TOFC and move it out in box cars, or vice versa. Per-car rates are becoming more common. Substitution rules—where a carrier can furnish two trailers in lieu of a box car under certain circumstances—are also adding to TOFC's flexibility.

Fixed facilities expand

While piggyback sales forces and rate officers are pushing hard to build the business, operating and engineering departments are keeping pace—building the fixed facilities needed to handle increasing traffic at the lowest possible terminal cost.

Cases in point: Chicago & North Western's million-dollar Proviso Plaza TOFC terminal at Chicago; Santa Fe's new piggyback installation at Dallas, which will be opened early in '64; and New York Central's new Elkhart, Ind., terminal, its expanded Chicago operations and its soon-to-be-completed terminals at Detroit and Boston. (NYC is also operating piggyback ramps at Chicago and St. Louis and at four eastern points—primarily to handle West-Coast produce traffic and meat and packing-house products from Western Trunk Line origins.)

• **Action pays off.** Is piggyback worth all this activity? Rail traffic men give a near-unanimous "yes"—and perhaps the strongest affirmative comes from U.S. Freight's Morris Forgash, enthusiastic booster of TOFC and, at the same time, determined critic of certain piggyback operations.

Mr. Forgash, president of the giant forwarder complex, declares that TOFC "can provide the key to the kind of coordinated transportation that modern industry demands. It can bring about an economic balance in transportation which will insure the health of all forms of transport, each functioning in the area of its greatest economic usefulness. It can take the slack out of the joints of the transportation system."

His reasoning is direct: Piggyback can work best in the areas where railroads have suffered the heaviest revenue losses over the past decade.

• **Potential in TOFC.** Over the 10-year period, he points out, "rail revenues declined by $1 billion, and about one-third of that decline, or $345 million, was accounted for by manufactured products—the kind of traffic peculiarly adapted to piggybacking. Revenues on agricultural products, largely susceptible of being hauled in all-purpose piggyback equipment in the direction in which the big percentage of empty movements now occurs, declined $46 million."

Manufactured and miscellaneous commodities, USF's president notes, account for almost a third of all rail tonnage and more than 40% of revenues. Products of agriculture rank third in the commodity listings.

"If the downward trend in these two categories of traffic alone could be reversed," he declares, "it would go a long way towards revitalizing the railroad industry. Piggybacking alone offers hope of accomplishing this."

In Mr. Forgash's view, railroads "must redouble their efforts, their

What's ahead for containerization?

Containerization has been a magic word for a long time. But only a few roads—New York Central and Southern principal among them—have been able to make containerization work in the way its backers say it will.

Now, however, there are strong hints that the day of the wheelless box may be at hand.

Containerization's development has lagged for several reasons. Motor carriers have been reluctant to break with the traditional semi-trailer and its permanently attached bogie. Piggyback's rapid growth has been based almost entirely on use of conventional trailers, loaded circus-style. Millions of dollars have been invested in rail flat-car equipment which will handle trailers—and nothing else, without extensive modifications.

• **Better deal coming.** The past year, though, has seen several developments which point strongly toward a better deal for containerization. Experimental movements have been made — to Europe, Hawaii, Puerto Rico. Some of these moves are now, or are going to be, on regular schedules. All have proved out under test.

Transportation companies — railroads, forwarders—have uncovered possibilities for balanced movements: canned pineapple eastbound and general merchandise westbound between Hawaii and the United States, for example. Western railroads and forwarders, working with Matson Navigation Co., are enthusiastic about the potential. Similar good results have come in container moves from the West Coast to Puerto Rico, from military supply depots in the U.S. to bases in Europe.

• **Designs change.** Equipment problems are being solved. Most container moves thus far (aside from Flexi-Van) have been made on more-or-less standard piggyback cars equipped with container cradles. But one manufacturer (Fruehauf) has designed a car to accommodate trailers, containers or F-V units—and indications are that '64 won't be half gone before other compatible-car designs are on the market. It's also possible that a new way of converting existing equipment for interchangeable trailer-container use may be developed on a large (and not too expensive) scale—and that could touch off the container era in short order.

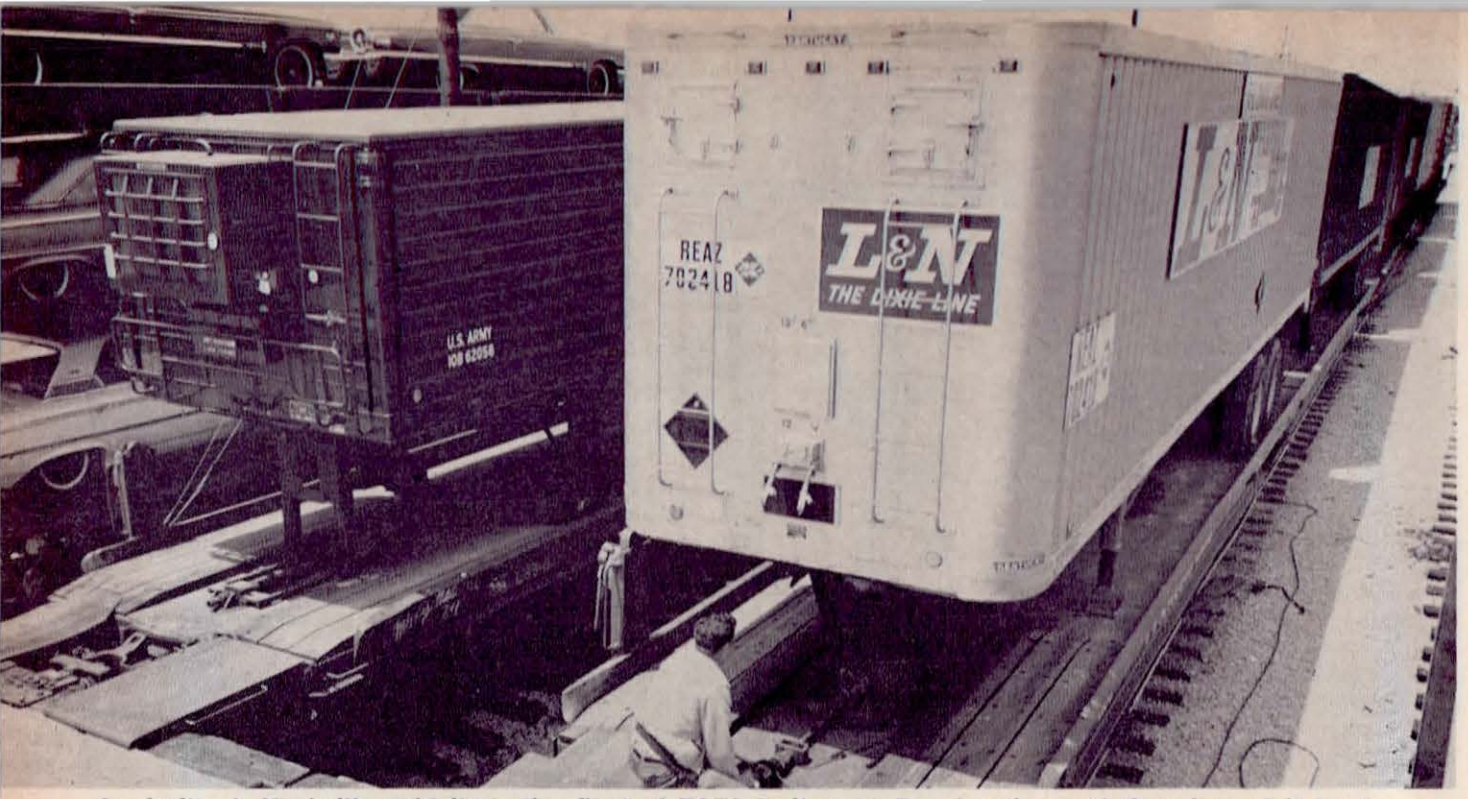
Hawaii-Midwest container service is expected to grow.

NYC's Flexi-Van fleet is continually expanding.

NYC, of course, is continually expanding its Flexi-Van fleet. But other roads, lesser users of the system, say they'll invest in additional equipment next year. And some, who own F-V equipment but operate it with bogies attached, seem to be looking toward the day when they'll be able to take maximum advantage of the system by operating it as a true container proposition.

• **The ultimate system?** Pros and cons of containerization have been debated for years—with the pros apparently outnumbering the cons, since most observers believe a container operation will ultimately be the major factor in coordinated rail-motor-water-air transportation.

But, so far as rail container operations are concerned, growth may depend on development of true compatible equipment and, perhaps, economical conversions of existing equipment. One observer's comment: "Be realistic. Look at the money invested right now in trailer-on-flat-car equipment. Nobody's going to write that off and go into a whole new type of operation. Containerization will come when they find a way to phase it—make it work with present equipment which can also be used for regular piggyback."



Louisville & Nashville sold its entire fleet of TOFC trailers to Rea Leasing and then leased it back.

'The biggest bargain in transportation is high-

studies, their cooperative action—and take every advantage of new technology." He's particularly concerned with the development of traffic balance —the two-way haul which can be obtained through use of reefer trailers for perishables one-way and for dry freight in the opposite direction.

● **'The big bargain.'** He readily concedes that reefer equipment costs more —"but you have to consider the load factor and the mileage covered. The biggest bargain in transportation is high-investment equipment—a flat car and reefer trailers."

USF's top officer is far from satisfied that piggyback is developing as fast as it should or, in some cases, along lines offering the best opportunities.

There are, he contends, "many problems yet unsolved, many crucial decisions to be made. Not only must transportation adjust to the relocation of industry; it must also adjust to the consist of traffic. Containerization is a tool of transportation. A tool reflects only the skill and judgment with which it is used. In addition to effecting coordination of media, piggyback can solve the problem of load factor and empty movements which has forced all modes of common carriage to price themselves almost out of the market and created the do-it-yourself movement.

"We have made tremendous strides in piggyback, but we have not moved fast enough nor far enough either in the direction of coordination or of all-purpose, interchangeable equipment. There has been a good deal of constructive thinking and action, but it has been too much compartmentalized."

● **'Blunted' technology?** So far as Mr. Forgash is concerned, "as a coordinating tool, piggyback has been blunted . . . by the failure of some people to understand what coordination means. Coordinated transportation means a combination of the services of different modes of carriage, on a conjunctive basis, so as to form a through route over the lines of two or more carriers with each carrier performing that part of the transportation which it is best fitted to provide, physically and economically."

That's his take-off point for a challenge to Plan I: "When the railroads sell piggyback service to their competitors at cut-rate prices, they not only cut themselves loose from their own customers and turn over the benefits of their own great new technology to their competitors, but they [also] invite their competitors to take away rail traffic and give it back to them at bargain-basement prices."

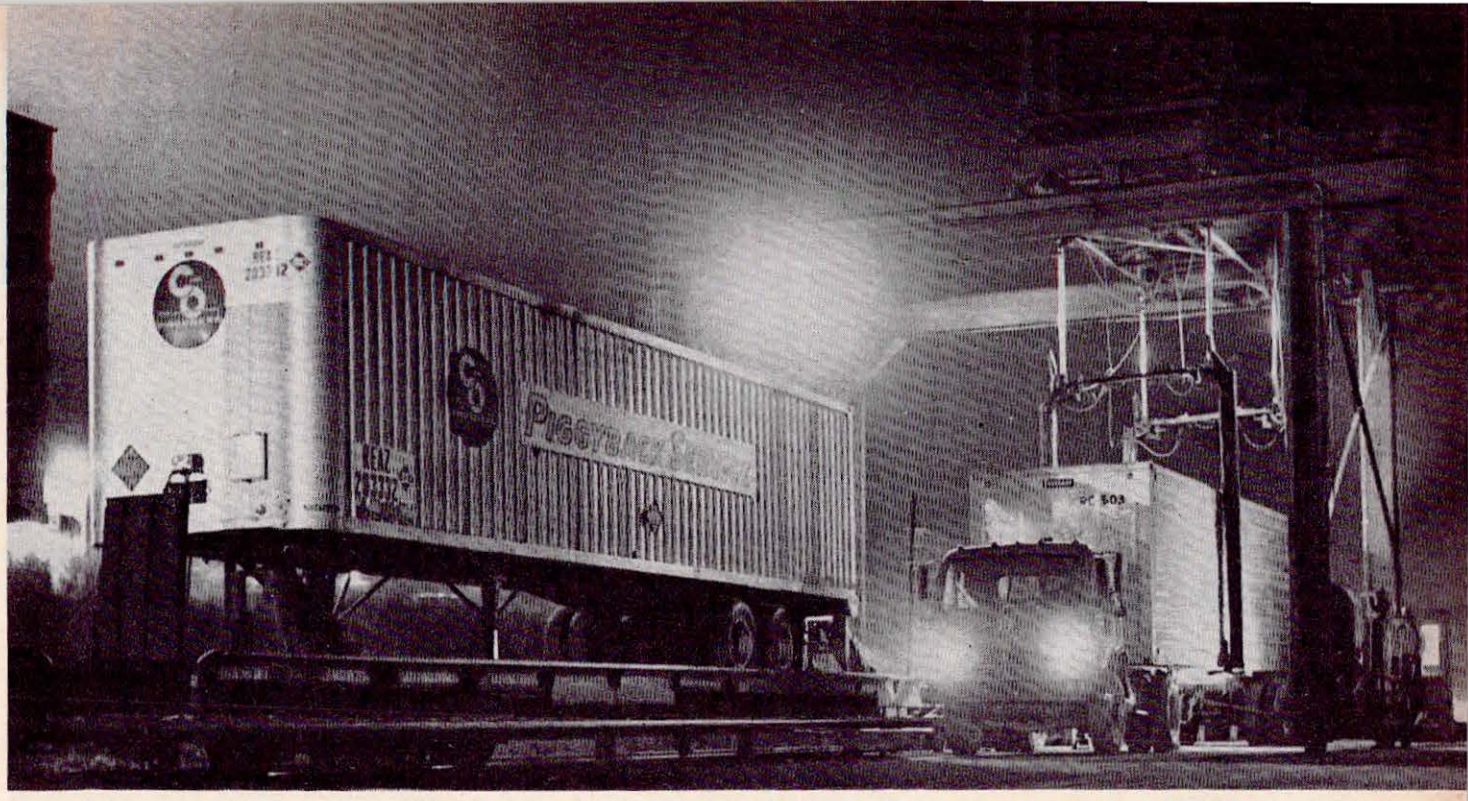
USF is not alone in worrying about coordination. Railroad traffic officers share the concern—and, in some quarters, there's an immediate concern with the outcome of Ex Parte 230, as it relates to inter-modal operations.

● **New pressures coming?** Some observers see a chance that pressures for coordination may be applied to open Plans III and IV to motor carriers or to force rail management to enter Plan I or V operations.

In its call for oral argument in the case (now set for Dec. 10), the Commission set for discussion one basic issue and a series of specific points bearing on that issue. The main point will be "whether, and under what circumstances or requirements, TOFC service provided under an 'open tariff' can and should be made available to everyone (including freight forwarders, express companies, and common and contract motor and water carriers, exempt or regulated)."

The specific issues involved are:

- Whether the use of such service by a regulated motor or water carrier "should be limited to a reasonable relationship to its authorized routes and gateways."
- Whether use "should be restricted against intercity shipments in connection with which the regulated motor or water carrier performs only terminal area service."
- Whether use by a regulated motor or water carrier "should be permitted at other than authorized common points of service."
- Whether a regulated motor or water carrier should be permitted to use the service "to serve points beyond the scope of its operating authority."
- Whether all ramp-to-ramp TOFC service "should be provided at the same



Use of cranes permits lift-on, lift-off operation anywhere in train, thus speeds terminal handling.

investment equipment—a flat car and reefer trailers'

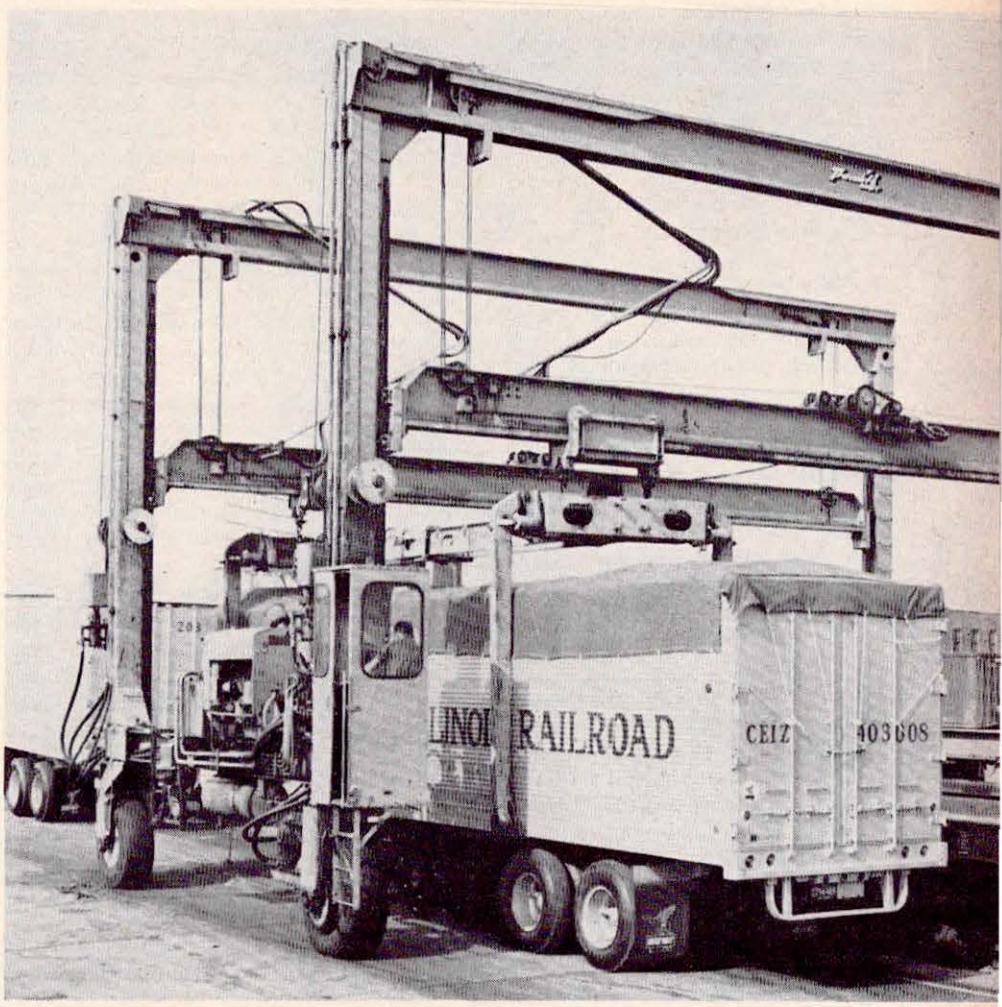
published rate or charge, with all rates and charges for any other service published separately."

While railroads, forwarders, truckers and shippers await the outcome of the 230 investigation, the carriers aren't marking time—and haven't been throughout the long proceeding, though some roads did note a holding back on the part of TOFC users while the probe was in progress.

• **'63—a good year.** New York Central, for example, looks back on a year that saw purchase of another 100 Flexi-Van rail cars and 650 containers; and the development of F-V services with an international flair. On NYC's list: Movement of West-Coast perishables to Puerto Rico in connection with Seatrain; adoption of F-V by two steamship lines serving Central and South America and Puerto Rico; formation of Integrated Container Service, Inc., which introduced a pool of 400 Flexi-Van units for world-wide service on a per-diem basis; and the beginning of development of F-V operations in the Common Market countries of Europe. Late in 1963, NYC also expanded its F-V mail service system-wide, with purchase of new containers and conversion of 100 F-V cars for passenger-train operation. Over the first 10 months of 1963, F-V was paying off with a 20% increase in loading over '62 figures.

Western Pacific also topped the industry-wide TOFC growth rate of

(*Continued on page 52*)



C&EI's expanding TOFC operation is shown using a lift-on, lift-off crane.

Clear track—but to where?

Here's how TOFC traffic officers size up the growth potential in TOFC's various plans

"Coordination is going to come. We think Plans II and IV are going to grow fastest now—but you can read between the lines, President Kennedy's Transportation Message and other comments from Washington. Coordination's coming, maybe Plan I, maybe Plan V."

That's a senior traffic officer of a western road talking.

"We're seeing a real comeback for Plan II. It was the workhorse of piggyback, originally. Then we came into the later plans and got good growth. But now we're seeing Plan II take off again. Frankly, I don't see why we should give the motor carriers a hand by taking over the high-cost part of their business."

That's a senior traffic officer of another western road speaking.

• **Shakedown in TOFC.** And the difference of opinion reflects an apparent fact of piggyback: There's still a lot of shaking down, developing and refining to do in the area of TOFC service—and the five plans known today may be far from the ultimate in piggyback operations.

East, West, Southeast, railroads are finding different plans best serving the needs of shippers—and the carriers are ready to give the required service.

Here's how major TOFC roads see the future—plan-wise:

So far as Santa Fe is concerned, there's "no question but that Plans II and IV will be growth plans . . . perhaps modified." ATSF is also optimistic about Plan II½—and, although its beginnings have brought problems, Plans V is regarded as another area where growth inevitably will take place.

• **Growth for II-II½.** Union Pacific sees the greatest potential in Plans II and II½. Like a number of other roads, UP also believes advances in marketing techniques will push TOFC ahead. J. R. MacAnally, vice president-traffic, notes that "there appears to be a continued need to direct sales efforts toward obtaining traffic which would provide loads for trailers that might otherwise return to origin empty. There also is a continued need to orient sales forces to the dollar and profit value of potential TOFC traffic."

Great Northern also looks for Plan II to show the greatest rate of growth —and GN is giving the plan a powerful boost through its LCL promotions, which have produced sizeable traffic increases this year and last.

• **Support for I-V.** Wabash is one road that seems convinced the coordinated-service plans—I and V—will develop strongly "because these arrangements bring railroads and motor carries closer together, working toward a common goal instead of against one another." Confidence in Plans I and V, however, "does not lessen our optimism about continued growth in the other piggyback plans." Wabash sees a need for expanding both Plan I and Plan III "into territories and via railroads where these plans are not yet fully developed." And, in common with several other carriers, the St. Louis-based road believes that "the field of traffic requiring protection against heat or cold has not yet been extensively developed. What is needed for piggyback is equipment that can run almost unattended for longer hauls and longer periods of time, with fewer mechanical parts and the elimination of costly maintenance and servicing problems to lower the cost of this phase of piggyback operation."

• **Take-off time for V?** Katy, like Wabash, looks for Plan V to take off. Such arrangements, Katy believes, "offer almost unlimited possibilities for growth and beneficial service to both shipper and carrier." Katy, however, is also a Plan II booster—and notes that this service "seems to be developing more rapidly throughout the industry." Like most roads, MKT doesn't see any of the now-offered plans tailing off appreciably—"but improvements will continue to be made in all of them and they will grow according to their adaptability to the areas and customer demands. No doubt new methods will be found as experimentation goes on."

Louisville & Nashville agrees that the industry can expect "a steady and continuous increase in Plan V." L&N, however, is one of comparatively few carriers to see Plan III as the top-ranking plan of the future. The plan—where the railroad furnishes rail-car equipment and the shipper provides the trailers—"offers the greatest potential for future growth, so far as we are concerned. This is due to favorable rates and changes in distribution patterns." L&N believes the "continuation of a progressive attitude is the main thing that will keep piggyback moving ahead at its current pace. Other things —improvements in equipment, marketing, service and so forth—will fall into place if that attitude is kept."

• **I, II, III developing.** Seaboard Air Line puts its bet on three plans—I, II and III. SAL points out that in Plan I "there is steadily increasing interest on the part of the over-the-road carriers. Plan I offers a complete and dependable service to the shipper at a low cost and, while Plan III offers only ramp-to-ramp service, the savings are great and this plan offers a flexibility of movement at each end which is very attractive to the shipper." Seaboard calls for an expansion of expedited TOFC services—and for "continuing emphasis on further education of sales forces in the fundamentals of piggyback, from both rate and service standpoints."

WP likes Plan V

Western Pacific sees Plan V as the big one—if for no other reason than the smaller base from which it's growing. WP points out that "there's a great deal of untapped potential to go after with Plan V. Plan IV will grow, but this largely represents conversion from box car, and most of this has already been accomplished and, therefore, growth will be relatively slower."

• **TOFC in the East.** Pennsylvania sees steady growth in Plans I, II and III —while its proposed merger partner, New York Central, sees great potential in Plan V. NYC says its Plan V "is developing rapidly and will continue to do so in 1964. The immense revenue possibilities realized and our concentration on its development are responsible for its growth."

Among a number of roads, there's confidence that modified plans II and III offer top opportunity. J. E. Doyle, Chesapeake & Ohio's vice president-merchandise traffic, believes Plan III

"or some modification offers the greatest potential. . . . In reality, Plan II½, as we know it today and which is quite comparable to Plan III in concept, likewise shows considerable potential." C&O also sees growth possibilities in Plan V —as does Missouri Pacific. MoPac, however, sees the greatest opportunity in Plan II, with its modified version, Plan II½. The road's reasoning: II½ gives the shipper and receiver flexibility in terminal areas to handle their own pick-up and delivery services; and it "permits elimination of the paperwork and policing normally necessary under Plan III, while providing the same type of service." MoPac thinks it's "probable that Plans III and IV will begin decreasing significantly in the near future with the publication of more rates in Plan II½."

New Haven tends to agree, to a point: "It's anticipated that all plans will continue to experience a healthy growth, with Plan III and its related modified plans making the strongest showing."

Baltimore & Ohio sees piggyback's biggest contributions to revenue coming through Plans II, III and V, "with Plan II traffic shortly reaching a plateau at levels not very much higher than present, while Plans III and V will expand at a relatively rapid pace." B&O also notes the "possibility of shifts from one plan to another as shippers experiment with the full-service principle vs the complete elimination of PU&D service and then back again to partial railroad performance of these functions. However, the primary momentum today appears to be in the direction away from railroad performance of pick-up and delivery work. Only if the railroad can put itself in position to perform drayage work less expensively than the existing differential between the Plan II and III levels of rates will this be stemmed or reversed. We do not envision material progress in this area during the coming year."

Apparently there's potential in all five plans—it just depends on where a road is, what its traffic patterns are and how it chooses to approach the problem of piggyback sales. Plan IV, for example, has its champions—and has developed almost solely—in the West. Plan III is strong in the East and Southeast. Plans I and V are growing stronger in all three areas—though they have their detractors in all areas. And Plan II (now with Plan II½) continues to be the less glamorous money-maker that keeps growing and growing.

• **Outside influences.** Part of the charting of TOFC's future development, of course, will depend on two groups beyond the direct influence of the railroads—government and the motor common carrier industry.

Some traffic officers are convinced that the mandate for coordination of services has been made clear—and will be made clearer. This, they believe—though not all are in sympathy—will bring expansion of Plans I and V, no matter what original reluctance there may be on the part of railroad or trucker.

Truckers' complaint

Truckers have long complained that they haven't been able to get Plan I between the Midwest and the Pacific Coast (though there is at least one combination of roads through which a Plan I service is available). And some roads see in this a defensive move on the part of the truckers: "Long-haul truckers really have something to worry about in Plan V—because under that plan it can be the local carrier who makes out, so far as the highway part of the business is concerned. Long-haul motor carriers, I'd say, show a certain fear of Plan V through their continual requests for Plan I services."

• **How about Hoffa?** Another western rail traffic officer sees differences in the potentials of Plans I and V based on the operations of the Teamsters Union. This ex-trucker-turned-railroader recalls a time when he switched an over-the-road move to piggyback—and had to pay a driver for a year over a part of the haul. He's not overly enthusiastic about Plan V—but he sees opportunities for development based on the labor angle: With Plan V, there's seldom a question of eliminating a driver, as there almost always is with Plan I.

On this basis, this observer contends, Teamster President James R. Hoffa "is the best friend the railroads have."

Teamster boss Hoffa—no friend of piggyback as the record would seem to indicate—may turn out to be just that on another count. Continuing Teamster demands, some railroad traffic men believe, may make private over-the-road carriage far less attractive to many shippers. And TOFC may be the beneficiary. Hoffa concedes that the granting of his demands on the trucking industry would make a rate boost almost mandatory—and railroad officers tend to think that the next round of Teamster wage-benefit hikes to hit shippers may push their costs to a point where its more economical for them to use piggyback.

• **Any faltering plans?** With piggyback still a comparative youngster—and susceptible to the changes of heart and mind that hit youngsters—do TOFC experts see changes which will upset any of the plans now in being? Not particularly. Union Pacific (which now operates only Plans II-II½ and IV) sees no reason for reduction in volume replacement, though "it is also possible that other plans may be offered." Wabash points out that all present plans "serve a particular need of various shippers, and we shall continue our efforts to develop them, as well as any other as-yet-unknown plans that might come into being to further meet shipper needs and produce new dollars for the railroad." L&N "cannot foresee a decline in any form of piggyback service. All plans, we think, will continue to grow."

In some quarters, however, there's a question as to the future of Plan III —a forwarder favorite. Several roads are having second thoughts about the plan. And at least one seems convinced that Plan III will eventually fade out, with forwarder traffic moving into Plan IV and shipper and shipper-association moves going to Plan II. This, however, probably won't come without a fight—plan IV implies shipper provision of all equipment, and some of the major forwarders can be counted on to balk at deeper involvement in equipment ownership.

• **Plan V—The big question.** As '63 wanes and 1964 comes in, though, the big question mark seems to involve Plan V. Southern and Missouri Pacific report good results, as do a few other roads. But for most, Plan V is a potential, a future-book sort of thing. It may work well. It may not. Motor carriers and railroads alike are wary of it—railroads have the invasion-of-territory problem to solve, long-haul truckers seem to be taking a "Plan V is all right if you like it" approach. Yet there's the comment from a top traffic man on one of the West's biggest railroads: "Eventually, you'll see Plan V all across the country."

That's piggyback and the piggyback plan, 1964: Change is the order of the day. And there's as much research going into developing better, more effective, more profitable piggyback services as there is into any other phase of the operation known as TOFC.

'Sometimes we don't have time to count the money'

(*Continued from page 49*)
13.5% by a sizeable margin. With intensive marketing efforts and entry into new services, WP was working on a 25% increase in piggyback activity over the first three quarters of 1963.

● **Perishables and LCL.** Great Northern's TOFC operations were also climbing sharply—number of trailers handled up 12%, revenues up 19%, tonnage up 26%. Like other roads in northwestern territory, GN is moving into the perishables business (primarily apples) in a big way. And its piggyback handling of LCL is also paying dividends (total LCL shipments out of the Twin Cities alone showed a 20% increase last month over October 1962—and piggyback is accounting for about one-third of all LCL movements).

Soo Line piggyback is up about 20% this year, on the basis of revenue trailers handled (and discounting the surge of business in '62 when a strike shut down Chicago & North Western operations for a month). Soo expects the same rate of growth in '64—and also looks for a boom in Plan V business (effective Jan. 1, Soo is scheduled to join the Middle West Motor Freight Bureau in joint-rate operations).

Both New Haven and Chesapeake & Ohio are experiencing a continuing TOFC growth—particularly, at present, in Plan III. NH, for example, handled 40.6% more Plan III trailers in 1962 than in '61, and the trend has continued. New Haven sees all five plans as filling shipper needs—but the Plan III concept "has been most attractive because it reflects the cost-plus basis of freight charges rather than a strict classification principle of making rates." C&O lays Plan III leadership to "its simplicity and the economics of the plan itself."

Baltimore & Ohio—banking most heavily on Plans II, III and V pegs its piggyback revenues at about $11 million this year and projects the total to $15 million in 1965 and between $25 million and $30 million in 1968. One major factor in B&O's brightening picture: the improved clearances, system-wide, that have come from a $12-million series of projects to remove tunnel and bridge restrictions.

What gets the credit for growth? Most roads agree: Expansion into new areas, establishment of faster schedules, more efficient TOFC terminal operations—and hard selling. A few roads—NYC and Pennsylvania among them—can operate solid trailer-container trains; Chicago & Eastern Illinois runs its hotshot TOFC train as a second section to the "Dixie Flyer;" but most lines are sticking to more established patterns, operating piggyback in regular through-freight service on (in many cases) expedited schedules.

● **Faster service needed.** Seaboard, in particular, makes a point of the need for speed in attracting business—speed of the kind reflected in current 24-hour TOFC service from New York to Florida, 30-hour service from Chicago to Florida and 28-hour service from Atlanta to New York.

So far as equipment is concerned there's almost unanimous confidence that carrier-shipper-builder cooperation will keep piggyback flexible in line with changing distribution patterns and transportation needs.

More specialized equipment

SAL, for example, believes that "through close cooperation with shippers, further specialized types of trailer equipment and cars will be developed to better meet the need of our customers. We believe that all trailer equipment will be more highly specialized in the future, so as to better do the job which the shipper wants done."

● **New standards?** With the increasing specialization, however, may come a degree of standardization—or compatibility—long talked about but never really attained. All major piggyback carbuilders have made moves in that direction in past years—Pullman-Standard, ACF, General American, Bethlehem Steel. The interest today is as high as ever—probably higher. It would come as no surprise if 1964 brought a new drive for TOFC equipment with greater interchangeability.

By far the biggest influence on equipment design, however, is Trailer Train—owner (with delivery of cars currently authorized) of more than 16,000 flat cars and representative of railroads accounting for well over 75% of the nation's rail mileage.

And while carbuilders and railroads are working on new designs, they're also keeping an eye on the steady march eastward of higher, wider, longer trailer units. Motor carriers (and forwarders as well) are fighting constantly for maximum cube—and if highway haulers can push through 13½-foot trailer heights, 8½-foot widths and 45-foot lengths, piggyback will have a whole new set of problems to wrestle with. Even if truckers should go to shorter units in multiple instead of longer single units to take advantage of length-limit increases, railroads might have their difficulties in fitting new trailer sizes to existing 85- and 89-foot cars. The problem probably won't arise for a number of years, but it's already got traffic and operating men thinking—and some of them aren't discounting the possibility of a return to the single-trailer piggyback car.

Henry Correa, ACF Industries' vice president-executive department, calls possible changes in trailer-dimension regulations the "X factor." If widths and lengths continue to increase, he says, "we will reach a cut-off point with present TOFC equipment. Many future flatcars may be articulated to handle two large trailers, or they may be simple vehicles able to accommodate a single jumbo trailer."

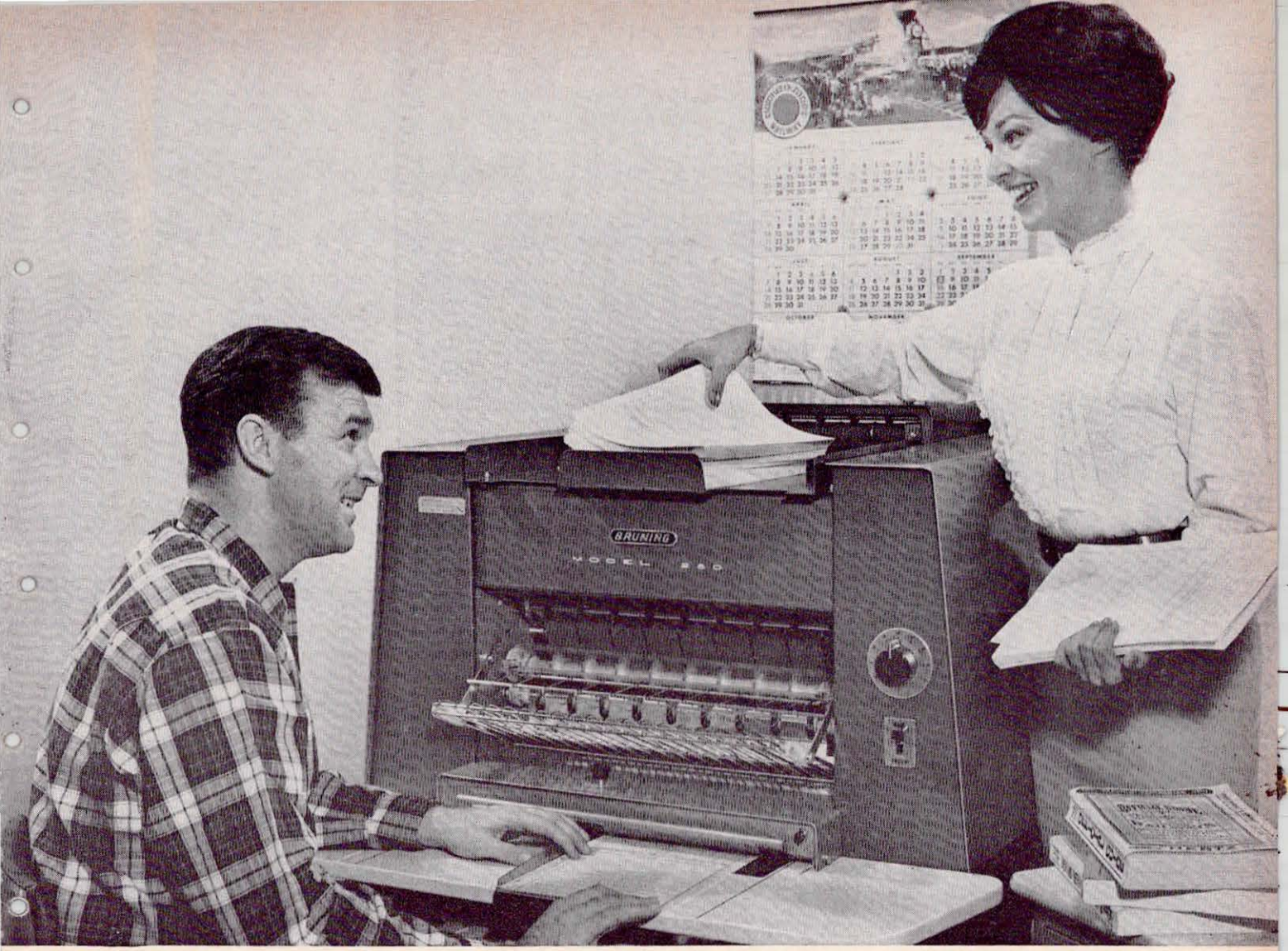
In common with most other major carbuilders, ACF sees further "specialized refinement of standard piggyback rolling stock as the highway transportation, marine and materials-handling industries advance their own technologies to cope with increased diversity in types of traffic. . . . Piggyback has become far more than the glamor child of railroading. The record shows that it has come to maturity as a stimulus to carbuilding volume, a significant contributor to revenue and profit and a stepping stone to still further revolutionary modes of freight transportation. One evidence of this has been the recent increasing pace of equipment development and refinement, whereas when TOFC first burst upon the scene the initial effort was to produce a standard car to keep up with that first rush of demand. Today, although the demand continues, it has become more specialized."

● **Order build-up?** For some roads, however, problems of equipment design aren't so pressing—nor anywhere near as immediate—as problems of equipment supply. And that situation should produce, through '64, a significant upswing in orders for both rail car and trailer-container equipment.

The piggyback sales manager for one western road discussed the problem candidly—but, for good reasons, cheerfully:

"Our problem really has been one of availability of equipment. We've got new piggyback moves all over the system. Shippers are continually finding new advantages to piggyback, new ways to use it.

"How much money is piggyback bringing us? I can get that for you—actually, I guess sometimes we don't have time to count how much money we're making. We just make it."



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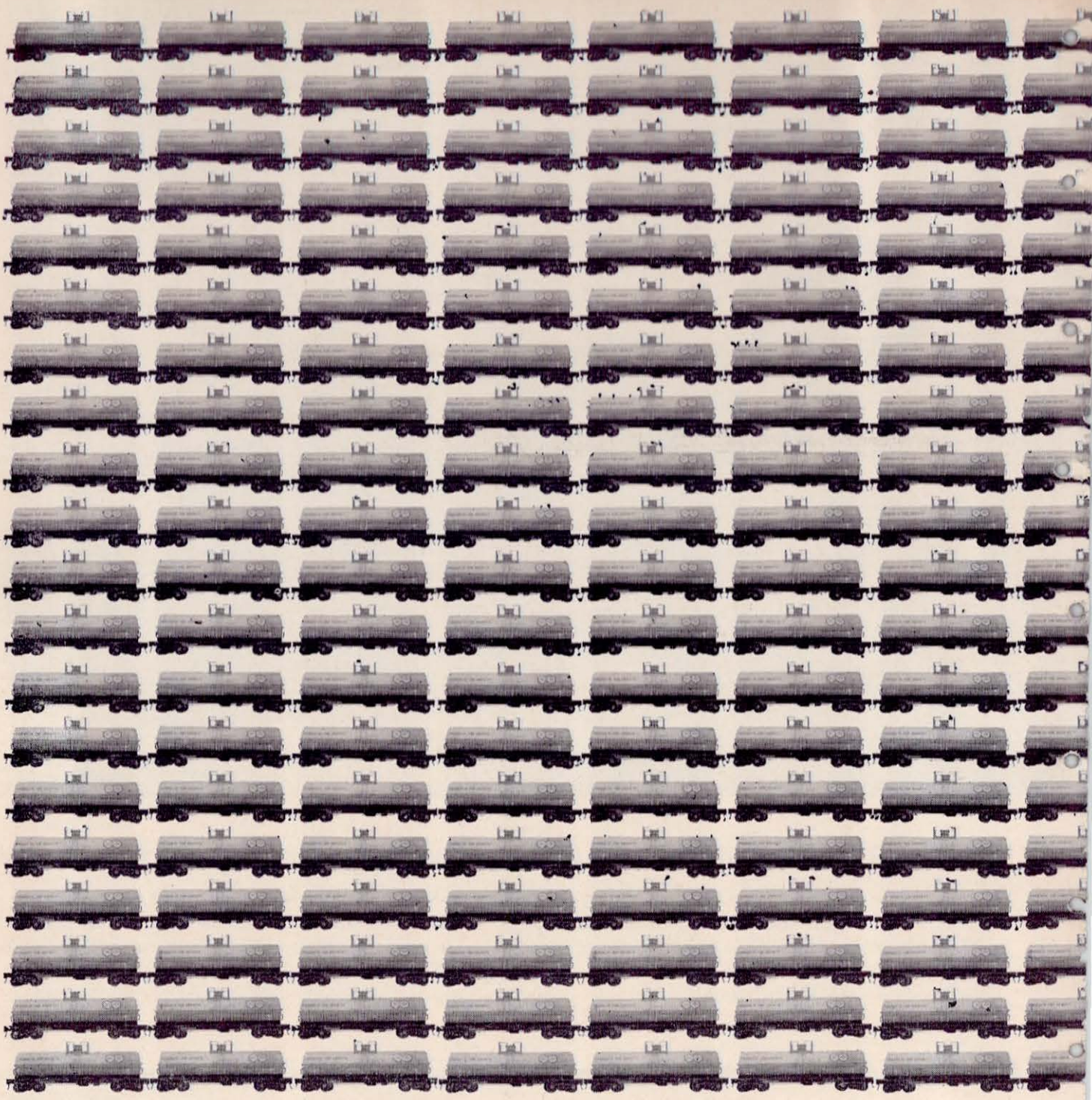

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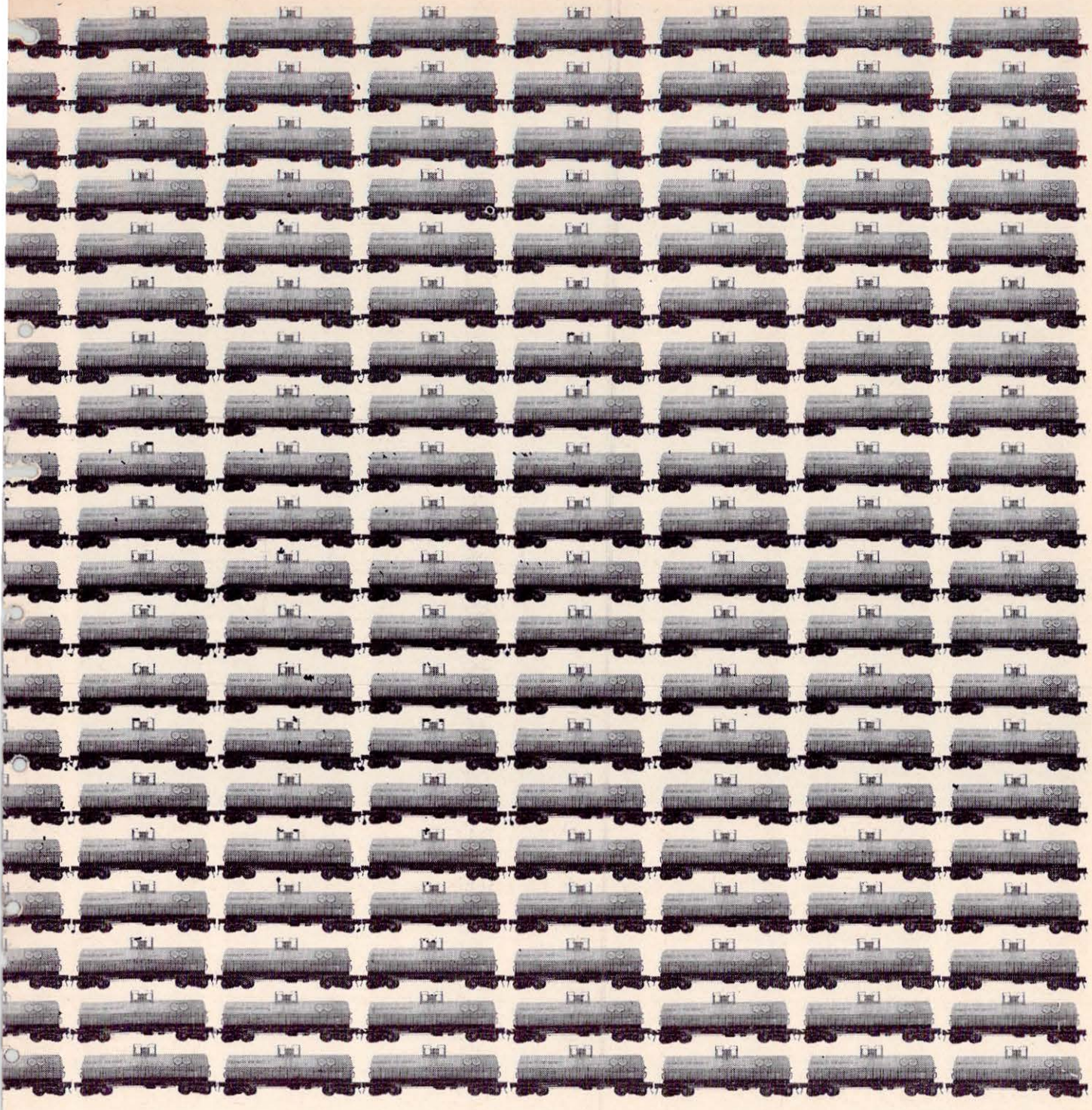
...tank cars of Reynolds Aluminum



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Strong, lightweight, corrosion-resistant Reynolds Aluminum is the only practical answer to the problem of hauling highly corrosive solutions such as liquid nitrogen fertilizer. North American's experience with aluminum tank cars in this service shows that the cars will go for years with no major maintenance. They need no interior protective coatings, and will take the daily beating that rail duty gives them.

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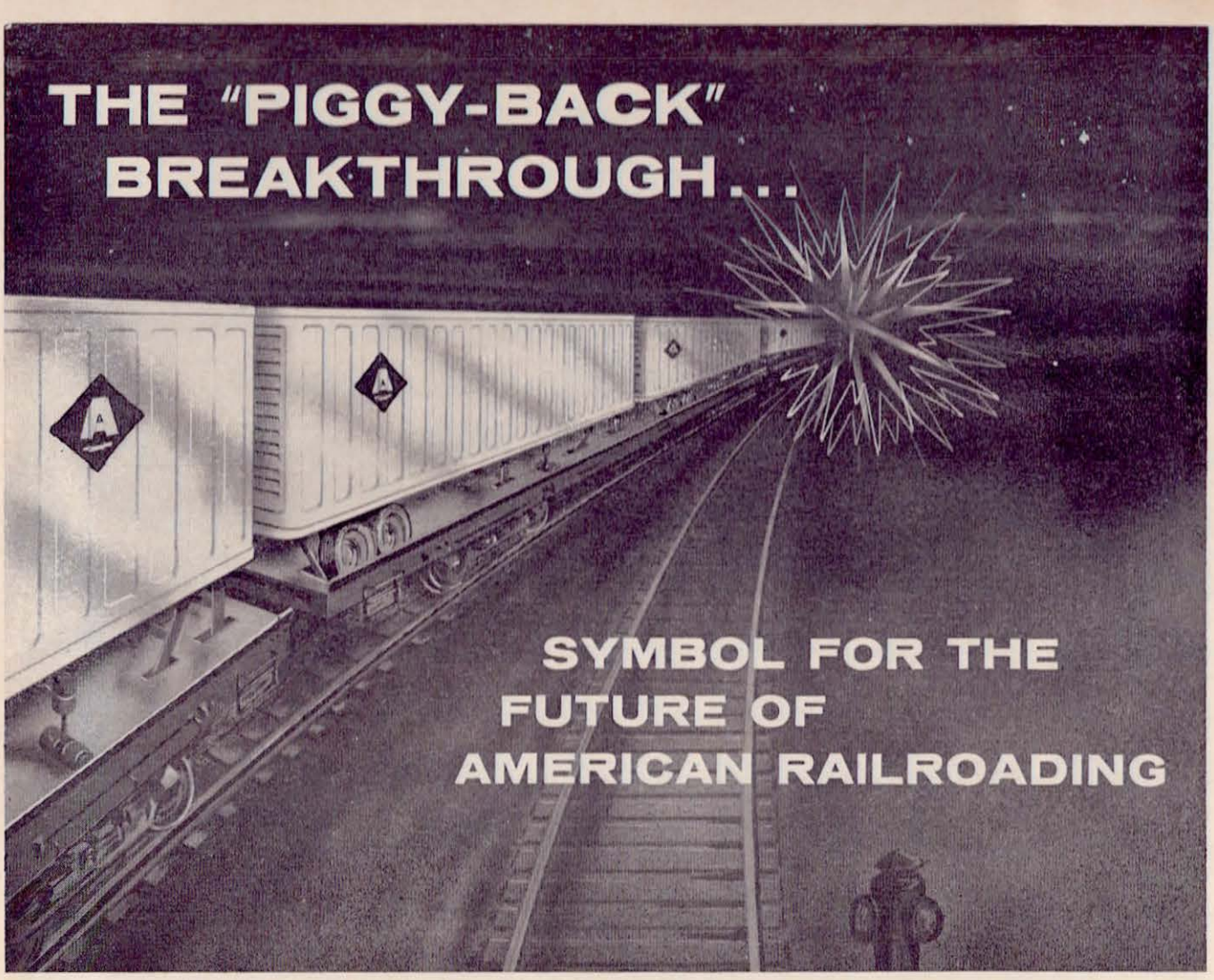

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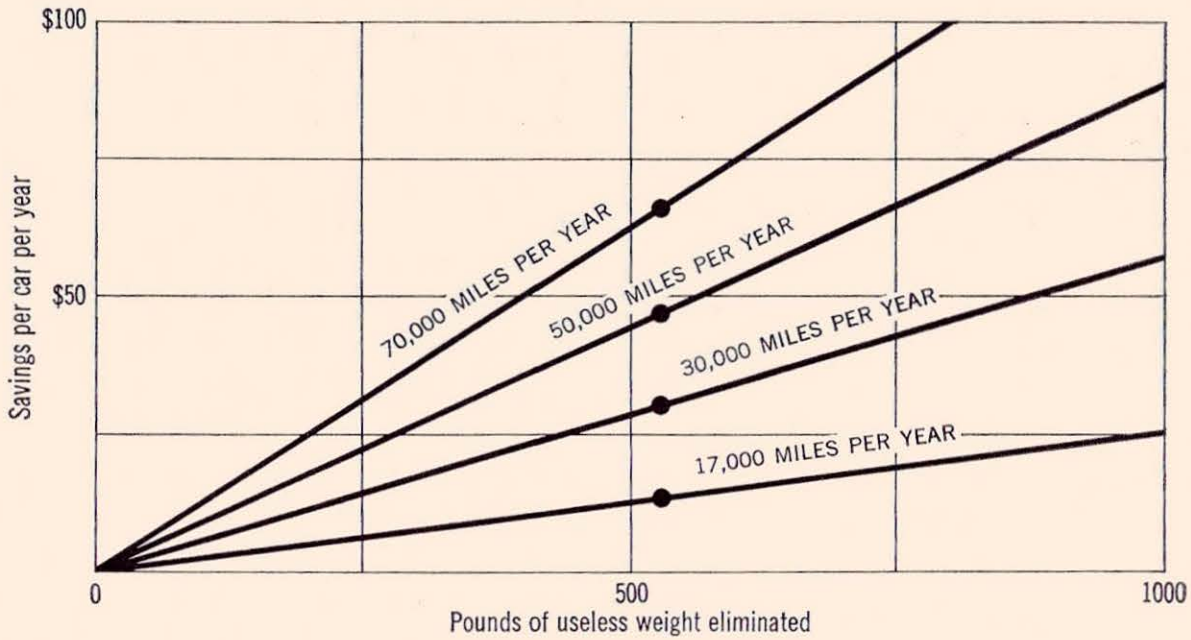

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Data from I.C.C. "Railroad Carload Cost Scales."—Statement 3-61, Dec. 1961, Box Cars.

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WEDNESDAY AUGUST 14, 1963

Versatile Vans

Big Boxes Which Shed Wheels to Ride Trains Capture More Cargo

They Invade Steamships Too; Kodak Cuts Its Shipping Costs $275,000 in a Year

A Rendezvous in Irwin, Pa.

By JOHN D. WILLIAMS
Staff Reporter of THE WALL STREET JOURNAL

Look closely at the next semi-trailer you see on the highway. It may be just a box—or two boxes—temporarily mounted on wheels.

Truckers increasingly are towing a type of trailer that comes apart almost as easily as a child's toy. The cargo box can be lifted off the chassis and hauled on a rail car, stowed in a ship or dropped off at a customer's door. What looks like a single cargo box may actually be two coupled together to be split up and sent to different destinations at some point along the line.

The growing popularity of this kind of freight transport is based on a simple fact: Many shippers find the boxes save them money. They speed deliveries and reduce handling costs, pilferage and damage.

Often called "containerization," the cargo box system got its start about seven years ago, when "piggybacking" of highway trailers on rail cars and ships was beginning to catch on. Searching for a more efficient method of piggybacking, the New York Central Railroad hit upon the idea of detaching highway trailer cargo boxes from the rest of the trailer, developing what it called "Flexi-Vans."

Since then at least six other systems similar to Flexi-Van have been developed. Fifteen railroads and a number of ship and trucking lines are hauling the containers. Equipment leasing companies have moved into the field; some shippers have purchased their own equipment.

A Big Gain

John B. Hulse, managing director of the Truck Trailer Manufacturers Association, Inc., in Washington, D.C., estimates that containers now account for about 10% of all rail piggyback loads, up from less than 1% in 1958. He predicts the share will grow to 50% by 1970. There are about 25,000 of the containers in use in the U.S., more than 10 times the number five years ago, Mr. Hulse estimates.

The rise has benefited a variety of companies. Strick division of Fruehauf Corp. expects to sell $20 million worth of container equipment this year, up from $7,787,000 in 1962. Next year it plans to enlarge its Fairless Hills, Pa., plant, where it produces containerization gear, even though the plant is only two years old.

The New York Central's Flexi-Van freight revenues leaped to $22,509,209 last year from $1,389,577 in 1958 and this year they have been running 35% ahead of a year ago. The railroad currently runs eight high-speed trains daily between the East Coast and Midwest that handle nothing but Flexi-Vans.

General Electric Co. shipped 5,000 container loads of products last year and expects to double that number this year. By shipping appliances in containers directly to East Coast dealers from plants in Louisville and Chicago, GE was able to cut handling costs 50% from the previous method of unloading them first at warehouses.

Foiling the Thieves

Eastman Kodak Co. of Rochester, N.Y., figures it saved $275,000 last year by shipping film and other products by both truck and rail in containers instead of exclusively by truck. It found the containers could haul products across the country for $4.32 a hundred pounds compared with $4.70 by conventional truck. Damage costs last year dropped to $16,000 from $59,000 in 1960 and the company has suffered only one theft compared with an average of 30 a year before it adopted containerization.

W. M. Tynan & Co., a big meat wholesaler based in New York City recently acquired a fleet of 55 refrigerated Flexi-Vans to haul pork and beef from the Midwest, a job previously handled by trucks. W. M. Tynan, president, says the current method cuts shipping time by about a day. A similar switch was made by American Biltrite Rubber Co., a maker of shoe heels in Chelsea, Mass., which estimates its savings at some $100,000 a year.

Transportation firms contend that containerization also means savings for them. The New York Central, for instance, notes that trailer chassis, also called "bogies," weigh roughly 4,600 pounds each. Of course, the train must carry this weight in conventional piggybacking. By leaving the bogies behind the NYC figures its trains can carry 24% more payload for a given amount of locomotive power. It calculates its Flexi-Van freight volume last year would have cost $904,841 more to haul by conventional piggyback methods.

There are other important savings. By buying the chassis and cargo container separately, users have to pay the 10% Federal excise tax (levied against transportation equipment) only on the chassis, which costs a great deal less than a complete trailer. And the separate chassis can be used through a life span of about 15 years. When chassis and container are a single unit both usually are scrapped when the container wears out, usually in about seven years.

Why haven't all of the nation's 100 major railroads adopted containerization? Some are reluctant to invest in the special flat cars equipped to anchor the containers. Others prefer to concentrate on piggybacking, because there still are far more semi-trailers on the highways than containers.

Containers currently are being produced in 10, 20 and 40-foot lengths, equipped with special couplings to permit two units to be put together.

Helm's Express, Inc., of Pittsburgh has 90 twenty-foot units. In Chicago, it loads one 20-footer with goods bound for New York and another with a shipment for Philadelphia. Then it couples the two together and pulls them, as a single 40-foot trailer, to Irwin, Pa., just outside Pittsburgh. There it rendezvous with another 40-foot coupled trailer from St. Louis, also composed of one unit bound for New York and one for Philadelphia. At Irwin, the two 20-footers heading for New York are joined and the two for Philadelphia are mated. The procedure saves Helm's considerable handling cost and speeds up its service to shippers.

International Shoe Co. in St. Louis gets along with six fewer truck drivers a night by using the linkable 20-foot containers. Formerly 12 drivers handled shipments to and from shoe assembly plants within 380 miles of St. Louis. Now the six drivers can each stop at two plants. For instance, a driver leaves St. Louis with two 20-foot trailers loaded with raw materials. He drops off one unit at the Bland, Mo., plant and proceeds on with the other to International's factory in Belle, Mo. The process is reversed on the return trip, when the trailers carry finished shoes.

Socony Mobil Oil Co. has eliminated seven warehouses, at a saving of some $250,000 a year, by using 50 of the 20-foot units. The company previously hauled oil products from a big warehouse in Albany to smaller warehouses in such towns as Syracuse, Utica, Elmira, Binghamton and Rochester. The small warehouses, in turn, served filling stations.

Now, trucks tow the dual trailers from Albany directly to service stations, leaving one 20-foot container on stilts at each station for operators to unload at their leisure and as they need the contents. Three other oil firms, including Shell Oil Co., are testing the method.

Containerization is sweeping through the steamship industry, too. Lines are convertng ships and buying more containers. In turn, port operators are expanding facilities for handling containers. Steamship companies find they can load or unload a ship with containers in about 12 hours compared with 36 for ordinary general cargo, on the average. Every day a ship can trim off its stay in port saves the operator from $2,500 to $5,000. "Containerships" usually are equipped with extra-large hatches and special cranes to handle the boxes.

The First Phase

The Port of New York Authority has spent $27 million on the first phase of a port development at Elizabethport, N.J., largely designed for container traffic. It's expected to cost $150 million over 15 years. Container movements already account for 1 million tons of traffic through New York's port each year and port officials expect the volume to rise to 4 million tons by 1980.

One of the authority's prime tenants is Sea-Land Service, Inc., a New York subsidiary of McLean Industries, Inc., of Mobile, Ala. Sea-Land operates 13 containerships on routes extending from New York to Puerto Rico, Florida, Texas and California. It now has 8,000 containers compared with 2,500 six years ago.

Seatrain Lines, Inc., launched a new container service from New York to Puerto Rico May 15 to supplement its runs to New Orleans and Texas City. In June, Waterman Steamship Corp., another McLean subsidiary, launched a new container service to Puerto Rico from Mobile and New Orleans.

States Marine Lines, in New York, which calls on ports in 17 different countries with its container service, is moving twice as much containerized freight as a year ago and four times the amount three years ago.

Matson Expansion

Since 1958 Matson Navigation Co. of San Francisco has spent $27 million on container handling facilities and on 2,200 containers. It expects about 70% of its general cargo from California to Hawaii to be in containers this year, up from 15% in 1959. Grace Lines in New York has four container ships hauling such items as chemicals and appliances to Latin America and coffee and other foodstuffs back. It has two more containerships ordered for delivery by next spring and another two by 1967.

American President Lines has ordered three new partly containerized ships, costing a total of $37 million, for trans-Pacific service in early 1966 and will award contracts for four more next year. United States Lines has eight new cargo ships, equipped to handle containers, entering service this year and five more scheduled by July 1965. Within three years, it will complete a special $28 million container-handling facility in New York harbor.

Still another factor in the container buildup are equipment leasing firms. Container Transport International, Inc., in New York, for instance, started out with 100 containers in 1956, now has 16 offices around the world offering 8,000 containers for lease.

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Just loaded or just arrived? This is how Morton Salt's mixed load of cartons and sacks looked on arrival. No damage was found anywhere . . . not even in the critical doorway area.

What's the Morton Salt Girl doing in a HYDROFRAME-60® Box Car?

She's seeing how a mixed load of sacks and cartons of salt arrived at Morton's Chicago warehouse without load shift, torn bags or crushed cartons, thanks to Hydroframe-60 protection.

Could a heavy load of sacks and relatively stable but mixed-size load of cartons be shipped in the same box car without expensive bracing and blocking? Would arrival condition be bothersome torn sacks, crushed cartons? The Morton Salt Company wanted the answers to these important two questions.

Through a Pullman-Standard Industrial Marketing Representative, they obtained a P-S Hydroframe-60 cushioned underframe box car for a trial movement of Morton products from their Marysville, Michigan plant. Eight hundred mixed-size cartons of table salt were loaded into one end of this 50-ton car, and 575 one-hundred pound, 5-ply sacks of salt were stacked in the other end. No blocking or bracing was used for this 86,000 pound load. This meant important dunnage and loading time savings.

On arrival at Morton's Chicago warehouse, not a split sack or creased carton was found. Unloading was fast and easy with no bracing to remove or car clean-up required. The Hydroframe-60 Box Car had done its lading protection job.

Like Morton Salt Company, shippers and receivers of a wide range of commodities are benefiting from Hydroframe-60* thirty-inch cushioning. Over 5,500 P-S Hydroframe-60 Box Cars are now available from 19 shipper-conscious railroads. Remember to ask for them by name.

*Covered by U.S. Patent 3,003,436. Other Patents Pending

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Atlantic Coast Line
Bangor & Aroostook
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Green Bay & Western
Gulf, Mobile & Ohio
Kansas City Southern
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Milwaukee Road
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Shippers promise more TOFC loads

Piggyback traffic will continue to climb in '64, according to industrial traffic men polled by Railway Age. They now anticipate increases next year ranging all the way from 1% to 100%.

The romance between piggyback and the nation's shippers shows no signs of cooling off. TOFC testimonials offered by industrial traffic men replying to Railway Age's November Traffic Poll range from warm to ardent.

Why the infatuation with TOFC? "It's simple," says K. A. Anderson, traffic manager of **Flour City Architectural Metals,** Minneapolis. "TOFC operations encourage business. Motor-freight operations discourage business."

Mr. Anderson is a member of a substantial majority. Forty other shippers polled by Railway Age report that they not only are now shipping by piggyback, but will increase their use of trailer-on-flat-car service in 1964. Only two TOFC users anticipate a decline in piggyback shipments. Three non-users plan to move into TOFC in '64, and a fourth hopes to join the parade if service becomes available.

The anticipated '64 increases range from 2.5% (**E. I. du Pont de Nemours**) to 100% (**General Mills,** which now uses TOFC to a limited extent only). Over the next five years, du Pont's traffic director, G. P. Church, foresees a steady increase of 1% a year; General Mills' assistant traffic director, H. Glenn Armstrong, anticipates a 500% aggregate increase in piggyback shipments over the period.

Other 1964 projections: one shipper looks for an increase of 1-5%; three, 5%; two, 5-10%; six, 10%; two, 10-20%; one, 15%; one, 15-20%; three, 20%; one, 25%; three, 50%; one, 50-75%; one 75%; two, 100%.

Five-year projections: one, 1-5%; one, 5-10% (annually); one, 10-15%; two, 15%; two, 20%; three, 25%; one, 40%; one, 45%; four, 50%; one, 80%; one, 200%; one, 500%; one, "substantial."

A handful of November poll respondents had complaints about poor TOFC service. Two grumbled about in-transit damage. A number want rates that are more competitive with truck rates. But nearly all agree that piggyback, because it is responding to a real shipper need, will account for a steadily increasing segment of railroad haulage over the years.

The role of TOFC as a problem-solver is pointed up by D. B. Goodwin, traffic manager, **Burroughs Corp.,** Detroit, who reports: "We are now shipping uncrated electronic computers between our plants in specially equipped piggyback trailers with considerable success." Burroughs plans to increase piggyback shipments by 20% next year.

Otto Olsen, director of traffic and warehousing, **Philip Morris, Inc.,** New York, who finds "the freight savings potential enormous," plans to increase use of piggyback by 10-to-20% within a year, and by 50% over the next five years.

Henry J. Rogers, director of traffic, **Heublein, Inc.,** Hartford, Conn., foresees a 10% increase in piggyback shipments in '64, and a five-year increase of 50%. He notes: "If shipper associations continue to increase, toward a more thorough coverage of the country, TOFC shipments will grow at an accelerated rate."

Richard A. Stuart, general traffic manager, **Whitehall Laboratories,** Division of American Home Products Corp., New York City, agrees that TOFC has a great potential—but he feels more aggressive promotion on the part of carriers would mean faster growth. Mr. Stuart, who forecasts a 20% increase in his company's piggyback shipments in '64, and a five-year increase of 40%, goes on to say: "Believe it or not, I don't think the rail carriers are aggressive enough in selling TOFC service to shippers. I say this even in view of the tremendous gains that the railroads have made in the past five years."

J. Robert Morton, manager of transportation, **Combustion Engineering, Inc.,** Windsor, Conn., expects 1964 piggyback shipments to be approximately double those of 1963 and foresees a "very substantial" increase over the next five years. He finds TOFC attractive because it permits maintenance of strict production schedules and "unloading where we desire."

One shipper wrote off the November Traffic Poll questionnaire with the terse comment, "Don't use TOFC—too expensive." Others were more specific in indicating what railroads can do to win more piggyback traffic.

E. A. Winter, assistant vice president, **Godchaux Sugar Refining Co.,** Reserve, La., says expanded use of TOFC by his company "depends entirely on carriers providing additional services and rates to ramp points and points that can be highway-served from such ramp points on our commodity—sugar. Present coverage is very limited."

Du Pont's Mr. Church notes: "Plan II, usually subject to the same rates as published in motor carrier traffic but in most cases not meeting truck service, offers little inducement for general use. Plan III commodity-weight rules (60-40) effectively restrict its use except through membership in shippers associations. Significant acceleration in TOFC

NOVEMBER TRAFFIC POLL

PROPOSITION

Trailer-on-flat-car operations continue to grow at a fast clip. A popular guessing game in railroad circles is to take current piggyback traffic figures and make projections—for the near and distant future—as to how much TOFC will grow. Shippers can add a new dimension to the game by indicating their TOFC intentions for 1964 and the next five years.

QUESTIONS

1) If you presently use TOFC service, do you plan to increase the amount of your traffic that will move in that manner in 1964?

Yes	41
No	2

In the next five years?

Yes	39
No	2

2) Can you give an approximate percentage for the increase over your 1963 TOFC traffic? For the next five years? (For replies, see text.)

3) If you do not presently use TOFC service, do you plan to go to any form of TOFC handling for your traffic in 1964?

Yes	4
No	5

In the next five years?

Yes	8
No	2

use by du Pont would be accompanied by publication of rates below truck level, cancellation of restrictive rules, and the provision of good, consistent service."

"Our use of TOFC service," comments Charles T. Coy, general traffic manager, **Eli Lilly and Co.,** Indianapolis, "depends on what is offered, what rates are set and what the competition does rate-wise. If there is an advantage for us, we will increase our usage."

For **U.S. Pipe & Foundry Co.,** Birmingham, Ala., growth of TOFC, says traffic manager C. A. Moultis, is "predicated upon rates and equipment being made available to territory outside the Southeast, the same as now available within the Southeast."

Says Phillip T. Catalano, traffic manager, **Steelcase, Inc.,** Grand Rapids, Mich.: "When the level of Plan II rates is different from the truck level, we anticipate a much wider use of TOFC." (In any event, Steelcase expects to increase its TOFC shipments by 50 to 75% in 1964.)

"Our use of any form of TOFC," says A. J. Natick, assistant to the vice president, **Libby, McNeill & Libby,** Chicago, "is precluded by such factors as substantially higher freight rates applicable to TOFC service; storage in-transit privileges not offered so we could mix products from different plants into one outbound transit shipment."

Transit privileges are also a concern of a southern general traffic manager who, while predicting a 10 to 20% increase in his company's use of TOFC in 1964, adds: "Long-range use of TOFC service will be determined by application of more liberal transit arrangements than presently in effect."

D. C. Ward, transportation manager for **Hoerner Boxes, Inc.,** Keokuk, Iowa, doesn't presently use piggyback, but he would like to—"wherever rates and service would be competitive with truckload service. As yet we do not have this in any area—except for rates. Invariably then the service precludes TOFC."

Frank Juranek, general traffic manager, **Clark Equipment Co.,** Battle Creek, Mich., anticipates an 8 to 10% increase in piggyback shipments next year, but notes: "Any further rate of growth will be reflected by the refinements of container-on-flat-car."

D. E. Ivins, traffic manager, **Century Electric Co.,** St. Louis, expects a slight increase in piggyback use next year. He adds: "More availability through substituted service could increase our use sharply, if it would also reflect the economic advantages inherent to one-line haul."

L. F. Van Kleeck, traffic manager, **Brown Co.,** Berlin, N.H., expects a 10% increase in TOFC traffic in 1964, and a 20% increase over the next five years, because, as he puts it: "TOFC provides rail transportation at costs lower than truck with greater flexibility than the railroads can provide on box car traffic."

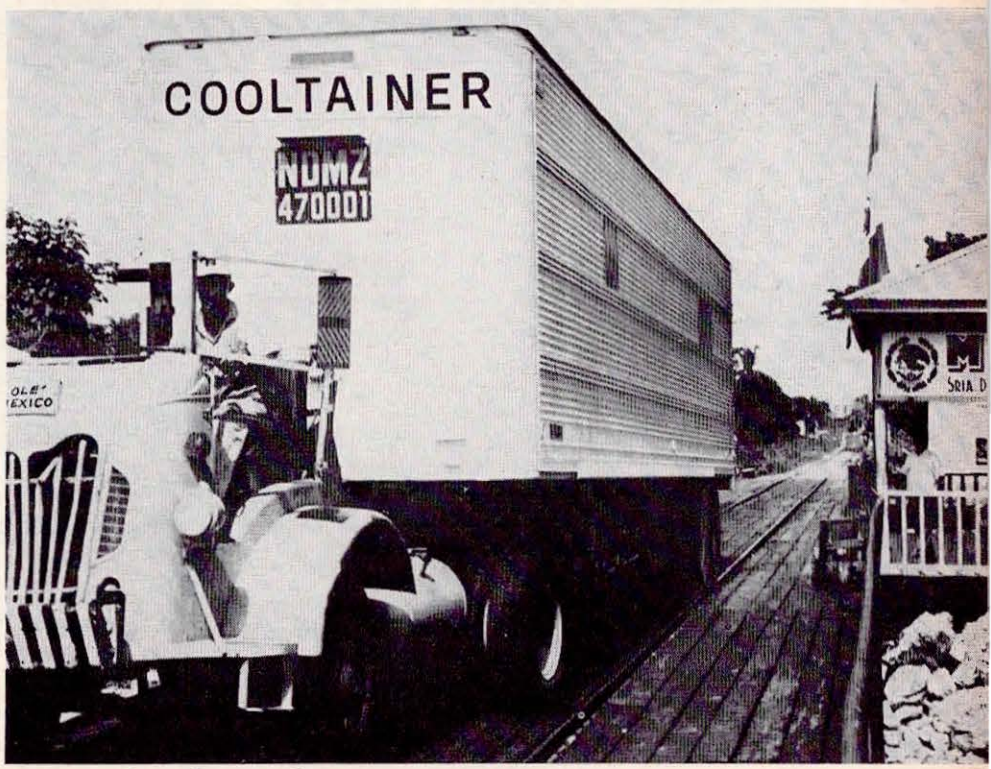
Griffin Pipe Products, Co., Wheaton, Ill., is trying to increase its use of Plan II piggyback by requesting truck-competitive rates from the railroads, reports general traffic manager B. Alan Fred, who goes on to say: "We are also very interested in Plan II½ and Plan III. We would anticipate that our use of Plan II½ and Plan III would increase greatest, if these services are made available to us at our various plants."

Thomas Vates, rail traffic manager for the **Celotex Corp.,** Chicago, foresees a 20% increase in piggyback shipments in '64. "Presently," says Mr. Vates, "we are using TOFC on one of our products and we were one of the first in this line to do so. The present scale of rates on this commodity was originally solicited by us; however, the rail carriers have recently reduced the carload rates and published incentive loading rates which are so attractive they should return some of our tonnage to rail movement. In view of this, we would hesitate in making a projection."

A number of respondents to the November poll indicate that service considerations will exert a controlling influence on their future use of TOFC. These include W. J. Edmonds, general traffic manager, **Granite City Steel Co.,** Granite City, Ill., who comments: "The future of piggyback will depend to a great extent on maintaining and improving present service."

Generally, TOFC is regarded as a damage-reducer — but two shippers polled by Railway Age don't agree. "We have used TOFC Plan III from Chicago to St. Paul, but discontinued because of excessive damage which apparently occurred in transit at St. Paul," reports A. H. Wilson, office manager, **Great Falls Shipping Association,** Great Falls, Mont. "Claims are difficult to handle as generally the movement was by truck to Chicago, TOFC to St. Paul and rail to Great Falls." But he adds: "I believe TOFC from origin to destination on many types of merchandise will be very popular in the future."

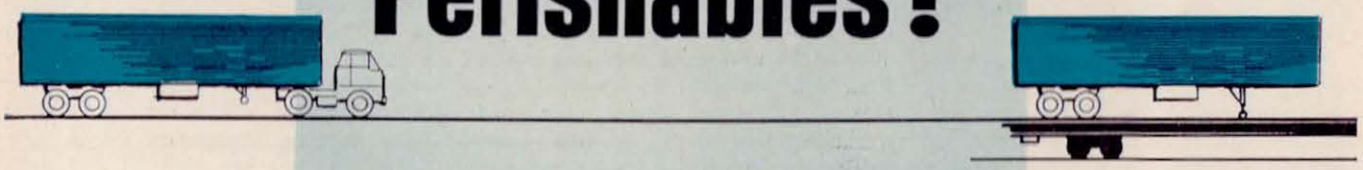
A similar report comes from T. H. Egan, Jr., manager of purchasing and traffic, **General Latex and Chemical Corp.,** Cambridge, Mass., who says: "We have made several trials of TOFC, all unsatisfactory due to excessive damage in transit. We plan to continue efforts to eliminate this, which is the only thing standing in the way of extensive utilization of TOFC."



Piggyback picks up a new customer

TOFC has proved a boon to shippers as a problem-solver. Latest example is provided by the TOFC movement of bananas from Guatemala to Texas. Packed in Cooltainer vans, bananas are trucked to the Mexican frontier town of Ciudad Hidalgo (above), then proceed by rail (via National of Mexico and Missouri Pacific) to San Antonio (RA, Nov. 11, p. 38).

Piggybacking Perishables?



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MISSOURI-KANSAS-TEXAS
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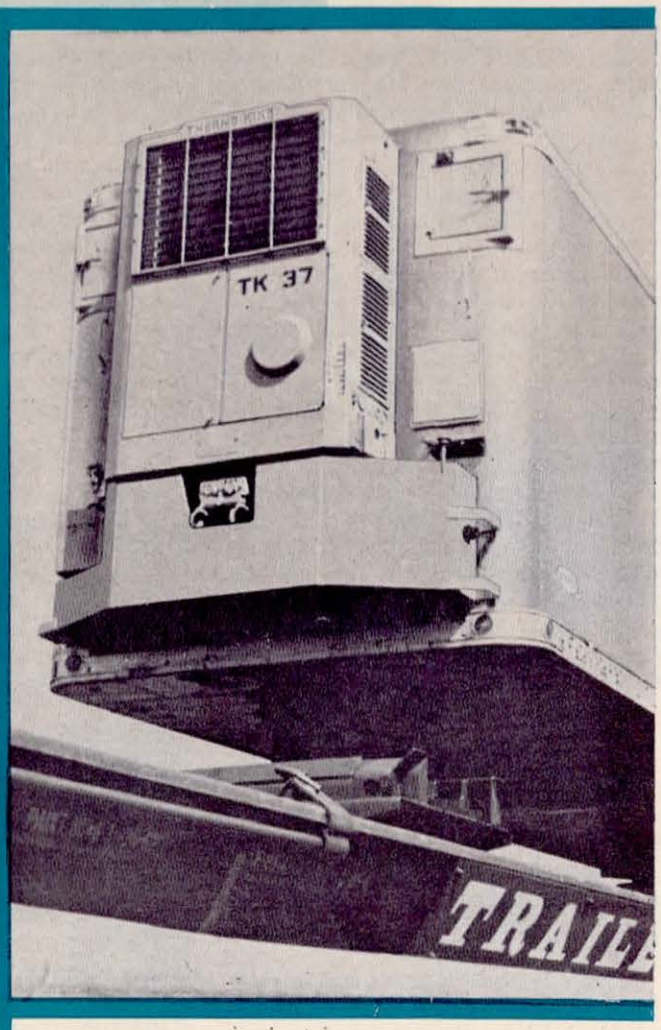

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'Operation Beaver' set for eager PRR

A new look is in the cards for the Pennsylvania's passenger and freight stations, passenger trains, shops, offices and employee quarters.

Stuart T. Saunders, who took over Oct. 1 as PRR's chairman and chief executive officer, has ordered a "fall house cleaning" for the week beginning Dec. 1. The project, dubbed "Operation Beaver," is designed to improve the carrier's public image.

"This vigorous clean-up program for the comfort and convenience of our customers and neighbors," said Mr. Saunders, "will enlist the efforts of all of our 62,000 employees in order to freshen up facilities in hundreds of communities we serve, and every passenger train we operate. This is just a beginning. We will continue to maintain good housekeeping and make as many improvements as our financial situation permits on a sustained basis into the future."

"Operation Beaver" plans for passenger trains call for stepped-up cleaning of interiors and exteriors—the latter through maximum utilization of car-washing machines at terminals. Cleaning of stations will be stressed with special attention given to the condition of waiting rooms and wash rooms.

"We have been working on this program for several weeks and on Tuesday (Nov. 19) we called to Philadelphia some 70 people from all over the railroad who will supervise 'Operation Beaver,' " Mr. Saunders said. "We explained the program to them and plans were enthusiastically finalized for the work."

Meanwhile, PRR President A. J. Greenough noted in a letter to employees: "While we will have serious financial problems and must maintain effective control of our expenses, there is no reason why we cannot give our house a good cleaning now and thereafter keep it clean. We are looking ahead confidently to an improving future and we cannot be content to let our railroad's appearance remain unsatisfactory. Those of us in contact with the public have a special opportunity because our appearance has a key effect on the way our company looks to the world."

"Operation Beaver" lapel buttons will be worn by PRR employees while on duty the week of Dec. 1 and posters explaining the program will be displayed in passenger trains and stations.

Penn Station goes down for the count

The staccato of jackhammers echoed through the caverns of New York's Pennsylvania Station last week as the familiar landmark began to show the first scars of destruction.

Demolition crews have been nibbling away at the mammoth 53-year-old structure since Oct. 28, to make way for a $70 million Madison Square Garden Center, scheduled to be completed late in 1966.

First step in the job of dismantling the block-square building was the careful removal (see photo) of eight two-ton sandstone eagles that have perched atop the station's columns. Some 500 letters requesting the stone birds have come in to the Pennsylvania from across the nation, ranging from a high school in San Diego to the Smithsonian Institution.

The railroad has not yet decided how it will dispose of its eagles, but has suggested that the City of New York might use them as part of a permanent display in Battery Park at the tip of Manhattan.

Sidewalk superintendents have already taken up positions outside the 33d Street ramp to the building, fascinated by the showers of sparks from acetylene torches. Inside, workers are wrestling with the formidable job of cutting into removable pieces the massive granite stairs on the east side of the ticket concourse.

According to plans for the entire project, Pennsylvania Station is scheduled to do a slow disappearing act. At no time during construction of the sports center will the station building be completely leveled. Once a portion of the building is removed, work on erection of the sports center above ground level will begin.

During the three years of building, the 550 trains operated daily by the Pennsylvania, Long Island and New Haven will continue to use the station facilities. Some 200,000 persons use the station every day.

The Pennsylvania's television-equipped ticket installation that was installed in 1957 at a cost of $2 million will not be disturbed by the project.

Riding majestically in a sling, one of the Pennsylvania Station's two-ton eagles is lowered by crane from its perch.

Ten additional moving stairways will be installed from train concourses to street level with each pair able to transport 90,000 persons per hour. Entrances to the station will be expanded, with six main street-level entrances at key locations.

The various railroad offices in the building, including those of the Pennsylvania's New York Region, will, by next summer, be forced to move to temporary quarters elsewhere in the city until a new 33-story office building is constructed on the 7th Avenue side of the station. At that time, the last of the existing Pennsylvania Station will disappear—sometime in 1966.

The circular sports center to be constructed will occupy the western two-thirds of the nine-acre site between 7th and 8th Avenues and 31st and 33d Streets. It will include a new Madison Square Garden seating 22,000 persons; a Forum seating 4,000; a 48-lane bowling club; a 400-seat sports theater; an art gallery of sports; the Madison Square Garden Hall of Fame; retail establishments and exhibition and display areas.

The complex will be built, owned and operated by the Madison Square Garden Corp., of which 25% will be owned by the Pennsylvania.

PRR WARY OF N&W PLAN

'Neutralization' premature?

Pennsylvania doesn't want to see its substantial interest in Norfolk & Western 'neutralized' until a hoped-for merger with the New York Central provides some compensating savings for PRR.

The merger-minded Norfolk & Western and Nickel Plate have come up with a plan for "neutralizing" the Pennsylvania's interest in N&W, but PRR won't buy the plan yet. It says it can't afford to surrender the investment until there is "some assurance" that savings anticipated as a result of its own proposed merger with the New York Central "can be achieved."

These pleadings have been filed with the ICC in the form of exceptions to Examiner Lester R. Conley's proposed reports (RA, Apr. 22, p. 22) recommending Commission approval of N&W's plan for building a 7,750-mile system—subject to conditions, including one which would require PRR to divest itself of financial interest in the railroads involved. The N&W plan contemplates merger with the Nickel Plate, lease of the Wabash and Pittsburgh & West Virginia, and acquisition of the Akron, Canton & Youngstown and PRR's Sandusky line between Columbus, Ohio, and Sandusky.

• **Opposition views.** Other exceptions include those of the Delaware & Hudson, the Department of Justice and the Railway Labor Executives' Association. D&H wants further hearing for the receipt of evidence from the record of the PRR-NYC case, and it challenges the examiner's conclusion that the "interdependence" of N&W and the proposed PRR-NYC system would be eliminated if PRR divested itself of its N&W holdings. The Department of Justice asks that the examiner's report be rejected unless arrangements are made for inclusion of the Erie-Lackawanna in the proposed N&W-NKP-Wabash system. E-L did not oppose the applications after N&W agreed to join it in negotiations looking toward some form of affiliation.

RLEA remains in the case as a protestant, but it offered no evidence after it negotiated a labor-protection agreement with N&W. Examiner Conley nevertheless recommended labor-protection conditions to cover employees not represented by RLEA. Another recommended condition is that, while the PRR holdings are in trusteeship awaiting consummation of a divestiture plan, the proposed new system be required to secure, by active solicitation, the routing of freight through the Buffalo gateway via lines other than the PRR-owned Lehigh Valley.

The PRR holdings amount to about 32% of N&W's stock. As of last June 30, they consisted of 243,419 shares of adjustment preferred, 71,100 shares of 6% cumulative preferred, and 2,397,284 shares of common. PRR took exception to Examiner Conley's conclusion that it controls N&W, and would control the merged company, within the meaning of the Interstate Commerce Act's Section 5. N&W says it agrees with this PRR view, but it developed the "neutralizing" plan in anticipation of a possible Commission conclusion that "power to control exists and divestiture is required."

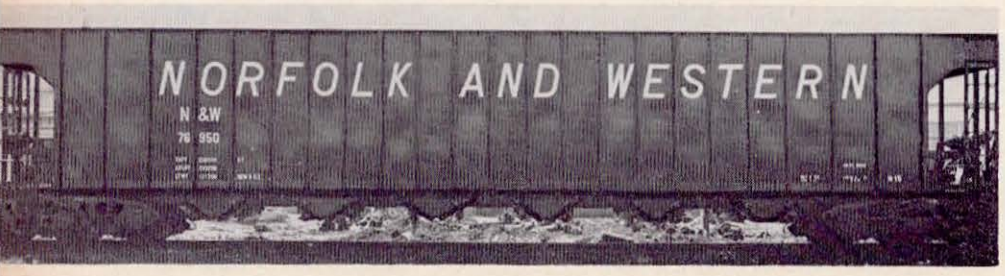
• **Provisions of the plan.** The plan provides for elimination of PRR's three-member representation on N&W's board of directors, immediately upon consummation of the merger plan. It also provides a timetable for disposition by PRR of all except about 800,000 of its common stock and all of its adjustment preferred and 6% cumulative preferred. The plan contemplates that, when the merger became effective, PRR would transfer to a trustee its right to vote all of its N&W preferred and two-thirds of the common.

All of this stock would be disposed of within a 12-year period, except 800,000 shares of common, which would be exchanged over a period of 10 years at the rate of 80,000 shares annually for 5%, 15-year convertible debentures to be issued in annual series by N&W on the basis of $120 principal amount of debentures for each share of N&W common.

When PRR's Wabash common (more than 98% of all shares outstanding) had been exchanged for N&W common, as proposed in the merger plan, the PRR would immediately give an independent trustee the right to vote such stock and dispose of it over a 12-year period from the date of the exchange. As to the Wabash, the merger plan is that N&W would lease Wabash lines with the right to acquire control through stock ownership at any time six years after the lease became effective.

• **Conditional approval.** Examiner Conley would have the Commission approve the lease but deny the request for authority to acquire the Wabash stock—"without prejudice to the filing of new applications for such authority if, as and when the parties are prepared to go forward with the transfer of control of Wabash." He also recommended that the PRR's Wabash stock be trusteed during the period of the lease.

PRR objected to this condition, but said it would accept a condition requiring it to surrender its option to select the time for transferring the



A hopper with a big payload

Coal-carrying capacity rises sharply in this new hopper car design now under test on the Norfolk & Western. With a nominal 150-ton rating the experimental car has 76% more capacity than N&W's standard 85-ton car. The car is hauling loads from the coal fields to consumers to determine its future in unit train service. Its six-wheel trucks are equipped with 6-½-by 12-inch roller bearings. Known as Class H-15, the car is 62 feet long and 13 feet high.

Wabash stock to the N&W, so as to make the transfer mandatory upon expiration of the lease's initial six-year term. The N&W-NKP pleading said such an arrangement would also be agreeable to them.

That pleading reported that the plan for "neutralizing" PRR's interest in N&W was worked out by a special committee of PRR and N&W officers. It was approved by the N&W's board of directors at its Sept. 24 meeting. "On Oct. 4, Norfolk & Western was informed that the PRR's board of directors at its meeting on Sept. 25 had not approved the agreement, and it has not been executed by the Pennsylvania," the pleading also reported, adding:

"Nevertheless, despite the fact that a formal written contract has not been executed by the parties, we submit that the terms of the memorandum of agreement, as prepared by counsel for all parties for execution, provide a reasonable basis for 'neutralization' of Pennsylvania's interest in Norfolk & Western if the Commission concludes that power to control exists and divestiture is required."

The PRR exceptions pointed out that that road has agreed, in the PRR-NYC case, to accept a condition requiring it to trustee and to dispose of its N&W stock "within a reasonable time in an orderly manner." It will be some time, of course, before the PRR-NYC case is decided by the Commission.

● **PRR: 'a serious problem.'** "The recommended divestiture," PRR says here, "is a drastic step that will pose a serious problem for Pennsylvania no matter how it is accomplished. There is no justification for a recommendation of this Draconian severity, and it will not serve the public interest, until Pennsylvania can bolster its financial position with some of the savings that will result from its merger with the New York Central."

PRR also objects to the proposed condition which would require the new system to favor Buffalo-gateway roads other than the Lehigh Valley. This was designed to protect Erie-Lackawanna.

The Department of Justice's pleading is in line with the statement made in the NYC-PRR case by William H. Orrick, Jr., assistant attorney general in charge of the Department's Antitrust Division.

The statement announced the government's opposition to the PRR-NYC proposal, but its conditional endorsement of the N&W-NKP-Wabash proposal. The Interagency Committee's price for clearance of the latter would require modification of the plan to include Erie-Lackawanna and, perhaps, the New Haven. It would also require PRR to give up its stock interest in N&W.

WP calls meeting on ATSF control

Shareholders will get a chance to air their views 'informally' at a special Jan. 10 meeting.

Control of Western Pacific by Santa Fe, already approved by an ICC examiner, will get its next test—though an informal one—at a special meeting of WP shareholders Jan. 10.

In announcing the call, WP noted that "from time to time it has been represented . . . that certain shareholders may not agree with some or all of the actions" taken by the board in the case. The meeting, said President F. B. Whitman, will give all stockholders a chance to express their views—though no "definitive vote" on the control plan and reorganization agreement can be taken until the ICC makes a final decision.

Stockholders will be asked for their opinions of three board actions: the support given Santa Fe's control application, the decision to oppose Southern Pacific's competing application, and the approval given the ATSF-WP control plan and agreement of reorganization.

● **Vote of 66 2/3% required.** If the ICC eventually approves Santa Fe control, then WP shareholders will have a chance to formally approve or disapprove the plan and agreement and to accept or reject the ATSF exchange offer. A 66 2/3% vote of shares outstanding will be required to put the transaction through.

While formal action must be delayed, WP said the board "felt it would be helpful to know the extent to which shareholders at this time are in disagreement with the board's actions."

Meanwhile, in Chicago, another rail consolidation case was in federal court —the case involving Rock Island—and the conflicting bids of Union Pacific for a merger and Chicago & North Western for control.

Rock Island shareholders were to have voted on the UP offer Nov. 15, but a petition filed with the court by UP and two RI holders succeeded in blocking the action. The petition charged C&NW and a committee of dissident RI shareholders with violation of rules of the Securities and Exchange Commission in soliciting proxies.

Union Pacific stockholders, however, were scheduled to go ahead with their vote on the proposal Nov. 22.

● **Proxy action banned.** Court action in the Rock Island case was launched less than 24 hours before the RI shareholder vote was to take place. Judge Julius Hoffman of U.S. District Court granted a temporary restraining order which prevented any business from being done at the Rock Island meeting, and banned further proxy solicitation or RI stock purchase by either side in the dispute. As a result, the meeting was convened and quickly adjourned—and attention turned to the court fight, which opened in earnest Nov. 19 with a hearing before Judge Hoffman.

The hearing promised to be a long one. Testimony is expected to be completed this week, and attorneys will then have five days to file briefs. A date for oral arguments on the briefs will be set, and a decision is expected about three days later.

Union Pacific contends that a report on the merger prepared by a brokerage firm, Hayden, Stone & Co., was distributed by North Western as proxy solicitation material although it was not registered with the Securities and Exchange Commission. UP charges the report contained false and misleading statements. UP's first 20 witnesses consisted, for the most part, of Rock Island stockholders who said they had received the report, and traffic agents who said they had seen the report in stockholders' homes while soliciting Rock Island management proxies. Several witnesses testified that they had been shown the Hayden, Stone report by North Western representatives.

North Western vice president and comptroller, L. S. Provo, called as an adverse witness by UP, denied that C&NW had helped prepare the report or distributed it. Mr. Provo said he had ordered 200 copies of the report, received them on Oct. 25, and immediately sent them to the Chicago office of Hayden, Stone & Co.

UP Attorney Stuart T. Ball said he would also attempt to show that North Western's estimates of $15 million savings from C&NW control of Rock Island, and $25 million savings from merger of C&NW, RI and Milwaukee, were "false and misleading because they were based on "inadequate studies." UP subpoenaed the studies.

LETTERS FROM READERS

On freight forwarding

Chicago

To the Editor:

Have you tarnished your editorial integrity with your "look at freight forwarding" in the October 28 issue?

Speaking for one of those "independent, one-outfit operations" you so unglamourously refer to, I think your look was a little too quick to fairly represent a well established segment of rail transportation.

You say we sell a "transportation service that someone else is responsible for delivering." This is dead wrong. Generally our customers don't know what rail and motor carriers we are using and don't care. They want service from us or they take their business elsewhere. I'd say that makes us responsible to our customers and to our stockholders for the service we provide.

If you want to tell your readers what freight forwarding is like, why don't you explain to them that forwarders have a legal responsibility from original pick up to final delivery.

Tell them that the forwarder must constantly evaluate and supervise the service performed by the carriers he uses because the forwarder must constantly offer the shipper the best combination of the available rail and highway carriers for each particular move.

Tell them that the forwarder not only utilizes the inherent advantages of each transportation mode, but also the service and rate characteristics of various carriers within each mode.

Tell your readers that the owner-operators and small cartage companies used by forwarders for pick up and delivery work are not the gypsies who operate in gray area, picking up a load where they can, calling themselves "private transportation" most of the time. Rather, they are enterprising men working in a very competitive business. They can't be gray area because they work within a terminal area where no rights are required. The forwarder uses them because it is the only way known to get first-rate service at reasonable cost on a small scale.

Out of 27 column inches representing a look at an industry, you devoted 16½ inches to the theft problems plaguing one operations manager. We don't think this is at all representative. We have not had a single theft of freight or collections in 1963. True, we have had theft problems from time to time, but never so big that they became our operations managers' number one concern.

If you interviewed someone from Clipper you would find that our first concern is service; how to minimize the elapsed time from factory pick up to store door delivery. We constantly fight this battle to maintain even the slightest edge on all other land carriers. Service is what characterizes the forwarder industry rather than the theft problem that you presented.

Charles Walters
Clipper Carloading Co.

[Railway Age has no argument with the freight forwarder's rightful preoccupation with service, since service, after all, is the only product a transportation agency—be it forwarder, railroad, motor carrier or whatever—has to sell. Just as the Pennsylvania Railroad's problems may differ from those of the Santa Fe or Frisco, however, so one forwarder's problems obviously may differ from another's. The article Mr. Walters questions was condensed from an interview with a veteran forwarder operating officer and represented a fair balance of his comments, concerning his job and his problems. His references to theft problems, incidentally, were described as his biggest problem *in the area of loss and damage*—not as his "number one concern" in the over-all picture. We feel sure, as his remarks indicate, that this man's "number one concern" is the advancement of his company's interest, through provision of good service—and through development of a positive attitude on the part of his personnel.—Editor.]

Gives Railway Age to shippers

Tacoma, Wash.

To the Editor:

I have been putting off for some time dropping a short note to you and your fine organization, about the excellent work you do in the Railway Age.

The Railway Age is a mighty fine magazine—I have been taking it for years, and look forward to each issue. I do not say I read it cover to cover. However, I do read and digest the major portion of it, and it has helped me over the years in endeavoring to do a better job in my position with the Great Northern Railway.

I have made it a point the past several years, when through with a current issue, to mail my copy on to some traffic manager, pointing out some article he might be interested in. I have received word of thanks from many of them, and believe this helps cement the relationship between shippers and the railroads. As a matter of fact, two of the traffic managers to whom I have mailed copies, are now subscribers of the magazine.

Keep up the good work—you are doing a good job!

Paul Meyers
General Agent
Great Northern

Air rights important

Jamaica, N.Y.

To the Editor:

Your air rights story (RA, Nov. 11, p. 14) is of special interest and importance to all railroads, as well as to the communities in which the sites are available. I feel that your story will stimulate interest, not only within our railroads, but awaken the municipal authorities to the importance of the inclusion of air right development within their zoning plans and urban renewals. Unfortunately, even New York City, in its recent revision of its zoning plans, overlooked the air right phase. With little ado, they generally apply the same zoning to the right-of-way or team yard as to the adjacent property. We feel this shortsightedness, and we were not too successful in our efforts to have a more favorable analysis and review made of our properties.

Advantages and benefits will accrue to both the railroads and the governing bodies only when there is coordinated thinking and planning in advance of the adoption of any program. The utilization of air rights involves high stakes and are a vital factor in the development of any area either within or on the outskirts of a community. Long range planning is required of ourselves and municipal office holders if we are to expect the most economical and successful development. . . .

The comment that it is easier to lease than to sell, may have some truth. But if the railroads are to look toward the future ownership and control of these office buildings, commercial developments, housing projects, etc., then they must be prepared to furnish the personnel and assume the obligations and expenses which the future may impose upon them in such a long range program. . . .

Let us not leave too many of the decisions to our successors but, with or without our individual crystal balls, endeavor to solve the problem for a good many years henceforth.

C. H. Stoutenburgh
Manager, Property and Purchases
Long Island Rail Road

C&NW leads again with new $1,100,000 Proviso Piggyback Plaza

At the North Western we're convinced of the future of piggybacking. And we're betting a million dollars on it with the largest terminal designed exclusively for TOFC operation. Why is it the largest? To give you, Mr. Shipper, faster, more efficient piggyback service.

Our open-for-business sign will always be up because our new Piggyback Plaza at Proviso (Chicago), Illinois, operates 'round the clock. On our 20-acre site, we have what it takes to move more than 600 trailers a day: an elevated acre and a half loading dock, 12 separate tracks (and room for more) for simultaneous loading and unloading of flatcars, electronic scales, a central communications system and ample illumination. The Proviso location offers easy access to major highways, Toll and Expressways.

Let us analyze your trailer-on-flatcar shipping problem and custom an answer using the flexibility of all 5 Piggyback Plans. Contact Ray Degnan, Director, Piggyback Department, 400 W. Madison Street, Chicago, Illinois 60606.

CHICAGO AND NORTH WESTERN RAILWAY

RAILROADING AFTER HOURS WITH JIM LYNE

LYNE

CHEERFUL WORD FROM BRITAIN—Transportation is going to be an issue in Britain's next general election—and a writer (Peter Jenkins) in the Manchester Guardian Weekly says the political parties are lined up this way: Conservatives for the highway haulers; Labor for the railways; Liberals for private transportation.

The author believes independent students of transportation will support railways as carriers of "goods and people in large quantities at fast speeds over long distances," getting rid of their lines of feeble traffic. (One-third of the railway mileage now carries only 1% of total traffic.)

If Labor gets in, Mr. Jenkins predicts that they'll up the user charges on the big trucks, making them pay "something nearer to the economic social cost of their operation." The Labor party, he reports, aims to achieve "an economic division of traffic between road and rail."

The author suspects that the day may come when transport investment will be made "on knowledge of total cost and advantage" and that charges will be based on "full social cost"—in which case he foresees that motorists may find themselves paying "three times more to drive or park in London in peak hours."

From these optimistic predictions, I deduce that Britain must not have a counterpart of James Hoffa or the National Highway Users conference operating in its fair land.

DELAWARE RR BOOSTER—Jack Smyth, editor and publisher of the Delaware State News in Dover, has sent me a full-page advertisement for railway passenger service from his paper—which was printed free of charge, with the publisher's compliments.

Editor Smyth suspects that the railroads are trying to discourage passenger business—but he feels they have a salable product (emphasis on convenience, safety and luxury). My own belief is, if railroads would get even half of a fair shake from government, most of them would lose any reluctance they might have to promote their passenger service (wherever there's really a need for it). But, in the meantime, when a fellow can invest scarce capital in some ways and earn 20% and up on it—where the same money invested in other ways will earn 0% or less—what should he do?

JAMMED AND RISKY, BUT IT'S FAST—Speaking of passenger service, I've had to do some traveling by air recently (where time offered the alternative of flying or staying home). Most of it was in so-called "tourist" or "economy" class—a more accurate name for which might be "steerage."

When there are three seats on each side of the aisle, in a cabin no wider than a passenger coach, and your knees hit the seat ahead, the crowding is even worse than in the old-time steerage on ships. But you do have to hand it to these air fellows for getting you there fast, even if they do lose your baggage. And I note that some jet planes now seem to be suffering from the dropsy (down 20,000 feet or so, suddenly).

Many people have forgotten how comfortable and safe train travel is by comparison. Getting faster (comfort not much emphasized) plane service seems to be a major governmental objective. Santa Claus comes down the chimney for all modes of transportation except the railroads.

BC ROAD ON UPCURVE—The British Columbia Hydro Authority has sent me a copy of its quarterly publication "Progress," which tells a lot about the Authority's freight railway, which surprises me (such was my ignorance) by reporting 104 miles of main line and 52 miles of secondary tracks—south and east of Vancouver, paralleling the Fraser River.

Even more eye-opening is the fact that the road grossed $5 1/3 million in its latest fiscal year (up 6.2% over the preceding 12 months), and that it has connections with three Canadian and three U.S. railroads—the Canadian National, the Canadian Pacific, the Pacific Great Eastern, the Great Northern, the Northern Pacific and the Milwaukee—the latter connection being right smack-dab on the U.S. border at Huntingdon (Sumas).

Any part of the railroad industry (small or large) that is showing healthy growth merits a spotlight.

'XL Special' speeds freight

(Continued from page 13)

• **Set for winter.** Milwaukee's schedule takes into account the extreme cold weather of mountain-territory winters and the operating problems that go with it. "We don't intend to reduce the tonnage during the winter," Mr. Valentine explains. "By having a car limit and by keeping the train moving, we should have fewer problems than we would have with a longer heavier and slower train.

One of the problems that has been worked out is crew changes. The XL Special is manned by 20 different crews —105 men—during the 2,179-mile run (some of the men are required by full crew laws).

Milwaukee is running some high-priced equipment in the XL Special—including piggyback flat cars and auto-rack cars—and is getting better car utilization with the faster schedule.

• **Schedule holds up.** Mr. Lewis's slide-rule schedule, the operating department's theoretical schedule and experience during the XL Special's first month all indicate that Milwaukee will be able to maintain the new timetable. Mr. Lewis's computations are based on a 3,000-ton train. In practice the tonnage varies—but still "the theoretical matched the practical schedule to a remarkable degree."

The advertised schedule calls for the train to leave Chicago at 2:30 p.m., Milwaukee at 5 p.m. and the Twin Cities at 1:30 a.m. Seven hours later, at 8:30 a.m., it's due out of Aberdeen for the 1,170-mile dash to Spokane.

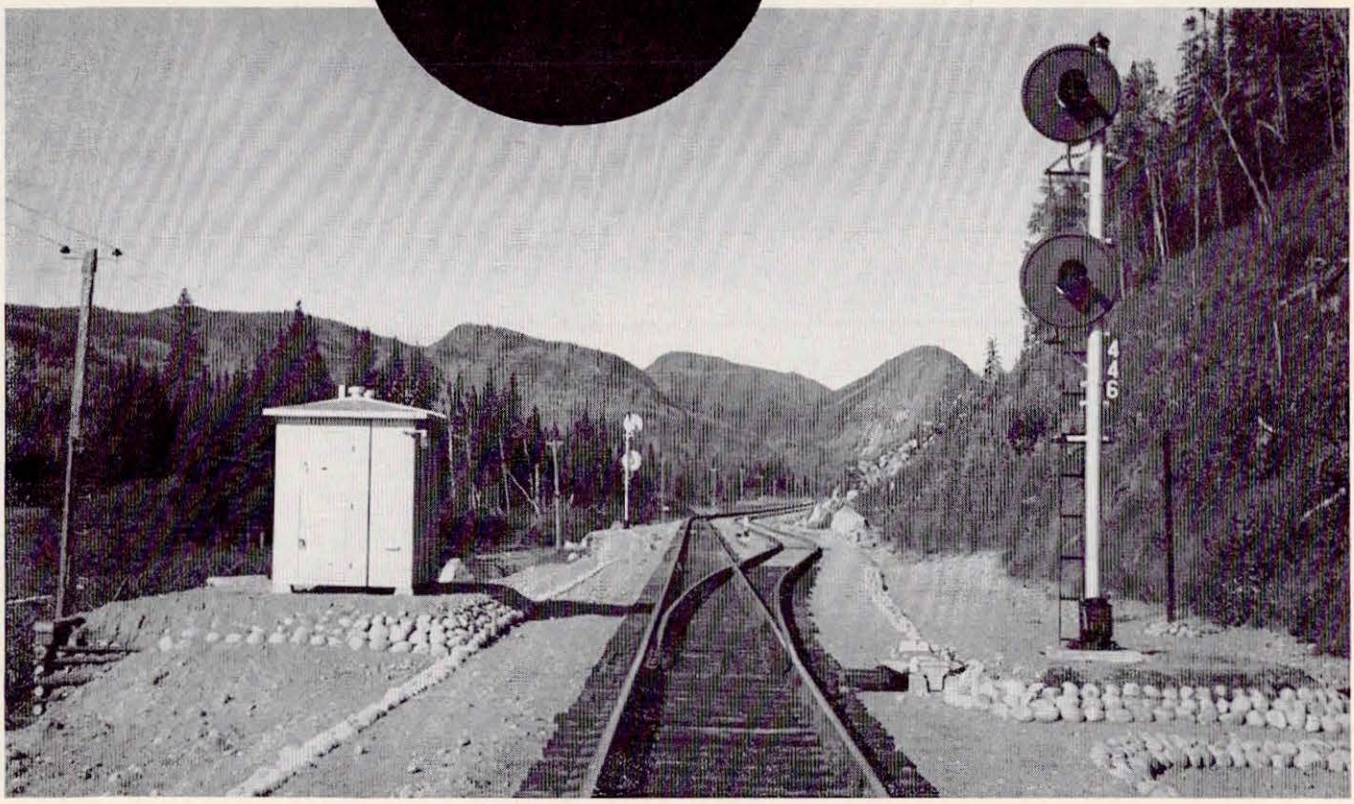
The XL Special's time now is 21½ hours faster than previous schedules—and only a few hours slower than some transcontinental passenger schedules. (A second section of the special, Milwaukee Train No. 83-263, is continuing to operate on the 77-hour schedule, serving intermediate points.)

Mr. Lewis first made a route profile, showing the speeds milepost-by-milepost. Then a series of calculations determined the changes in speed mile by mile, "even to a tenth of a mile, with every change of grade." Average speeds between terminals were computed and added up to get the total time required. The next step was to compare the computed schedule with the results of operation and dynamometer-car tests.

"After several weeks of experience," comments Mr. Valentine, "we're certain that we'll maintain this schedule. We've accomplished arrivals ahead of schedule on these trains. . . . We feel we have a solid, realistic schedule."

when you push the button . . .

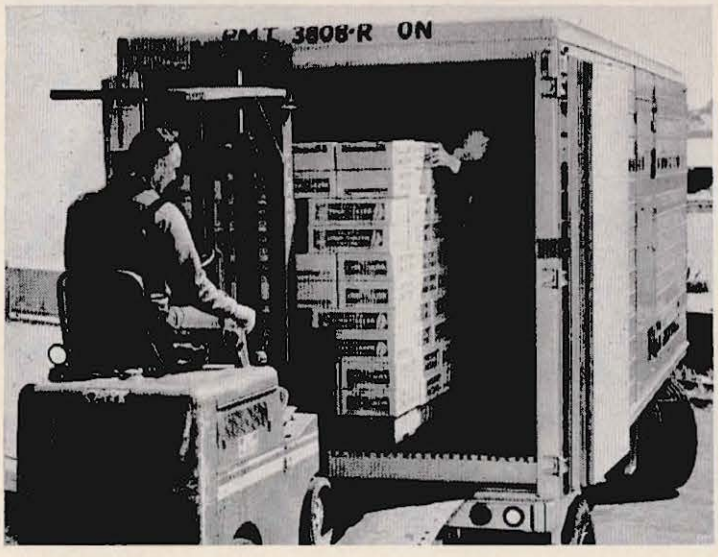
You are assured
of immediate and positive
results with GRS
well-integrated cTc systems.
GRS is your one-source
designer, manufacturer, and
supplier of control
consoles, coding systems
(both relay and solid state),
carrier equipment,
safety relays, signals,
switch machines, etc.
And GRS follows through to
provide complete
and dependable service.
Push the button now to call
your GRS sales engineer
—he'll explain
our one-stop service,
our "one-package" deal for
a complete cTc system.



GENERAL RAILWAY SIGNAL COMPANY 3245

A UNIT OF GENERAL SIGNAL CORPORATION

ROCHESTER 2 NEW YORK · NEW YORK 17 NEW YORK · CHICAGO 1 ILLINOIS · ST LOUIS 1 MISSOURI · MONTREAL 2 CANADA



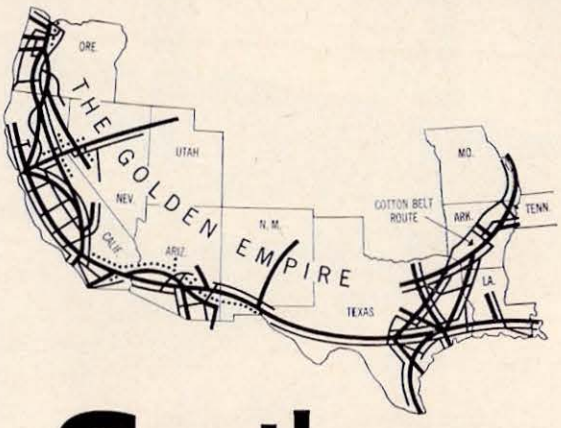
Your own loading dock, however distant from the railroad, is where S.P. Piggyback Service begins. Your shipment is loaded into a highway trailer and trucked to the nearest S.P. piggyback ramp. From there the trailer, with your shipment intact, goes by train to its destination terminal.

Experienced S.P. ramp crews move trailers onto specially designed flat cars. More than 60 S.P. ramps are strategically located throughout S.P.'s service area. Like the shipper, the receiver doesn't have to be on rail. Door-to-door pickup and delivery are included in S.P. Piggyback's through rate.

You don't have to be "on rail" to ship freight piggyback on S.P.

Southern Pacific Piggyback brings you the dependability and economy of rail service, even though your shipping dock is "off rail". Rates are attractive. Routes are direct. And you get the flexibility of door-to-door pickup and delivery. Want complete information on routes, rates and schedules? Call your nearest S.P. traffic representative today.

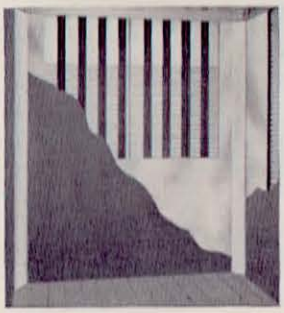
Off the highway, on their own steel "freeway", S.P. piggyback trailers ride the rails smoothly, swiftly. Fast, through service for both local and transcontinental shipments often beats the best highway times. Fast unloading at destination terminal makes your shipment available for prompt delivery.



Southern Pacific

Serving the Golden Empire with

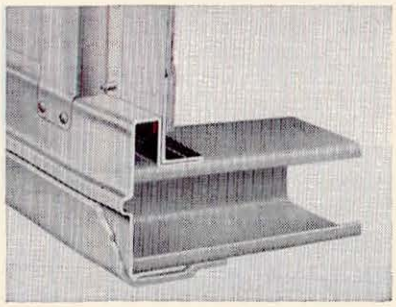
TRAINS • TRUCKS • PIGGYBACK • PIPELINES



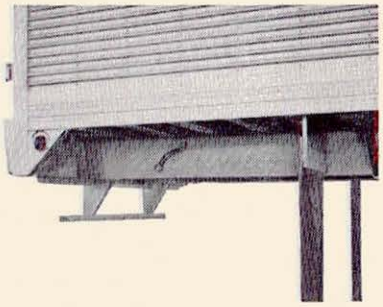
Extra strength up front!
Reinforced nose has four extra posts . . . an 18-gauge, high-tensile steel bulkhead and ¾" plywood lining to protect against damage from load shifting.

Extra strength at the rear!
One-piece plymetal doors with four locks guard against load shifting or other impacts encountered in railroad service.

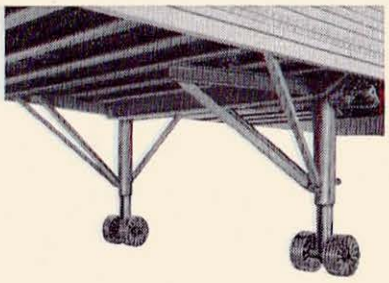
Extra strength in the coupling area!
A ¼" steel apron protects trailer bolsters from damage when flatcar stanchion is raised to anchor the kingpin.



Extra strength in the frame!
Outer rail reinforcements permit the trailer to be safely lifted onto flatcars (by crane or travel lift).



Extra strength in the sub-frame!
Heavy-duty rail extensions give better floor support and provide a strong anchor for tie-down loops.



Extra strength at the prop!
Heavy-duty landing gear uses heavier gauge steel and has additional bracing from legs to floor bolsters.

These Trailmobile piggyback "extras"...

add extra profit to piggyback operation

In engineering trailers for piggyback service we like to put a little extra in—in terms of strength—so you can take a little extra out—in terms of profit!

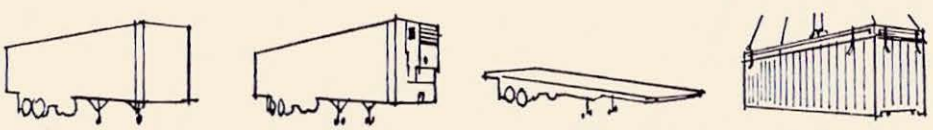
The "extras" we introduce come in the form of a special package of piggyback features which were developed and proved in extensive piggyback testing—a package of **six special features** that provide **solid** protection in all areas of stress encountered in this kind of service. That's why you can count on Trailmobile piggyback trailers to protect your revenues against costly down-time and needless repairs . . . to return more while you use them . . . and more when you trade them.

Check with your nearby T/M representative for complete information or write to Trailmobile at Cincinnati for Piggyback folder #763-16.

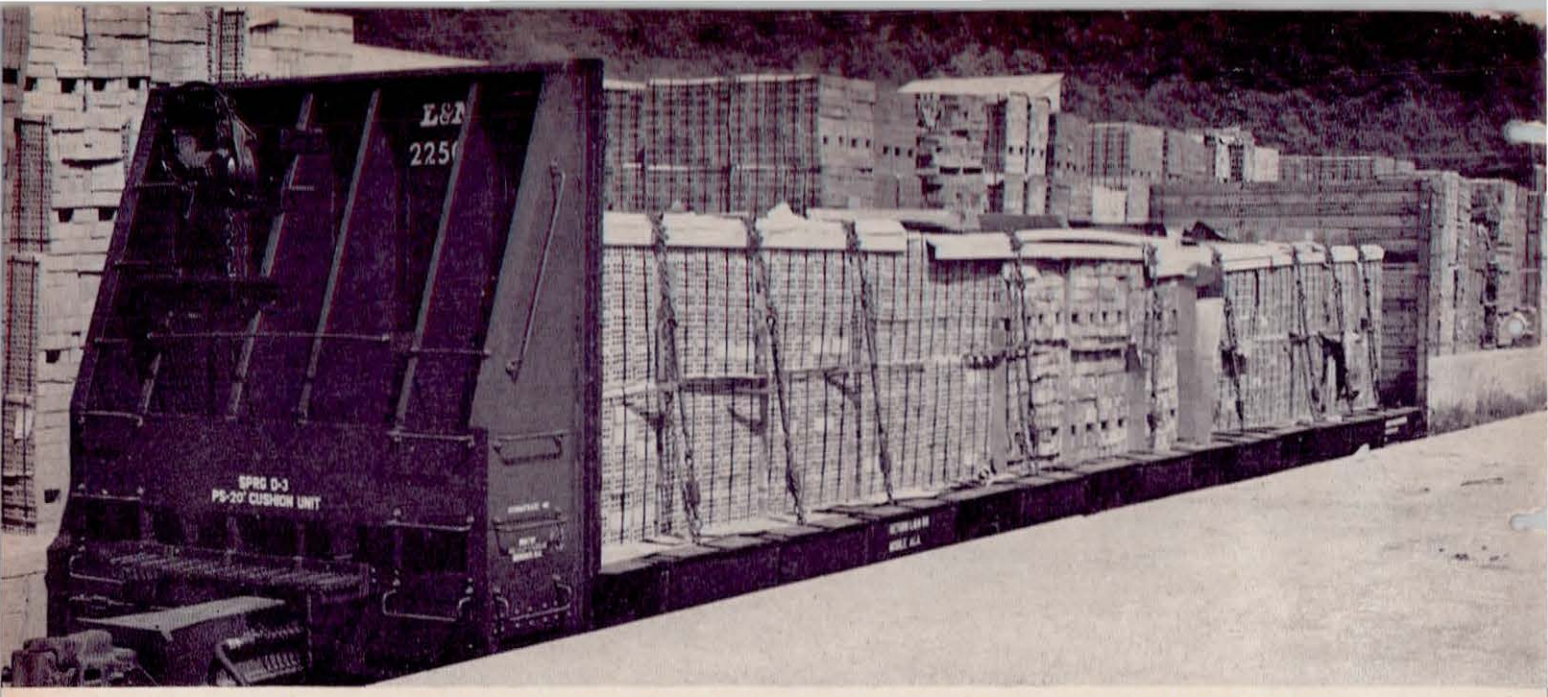
TRAILMOBILE

Cincinnati 9, Ohio • a division of Pullman Incorporated

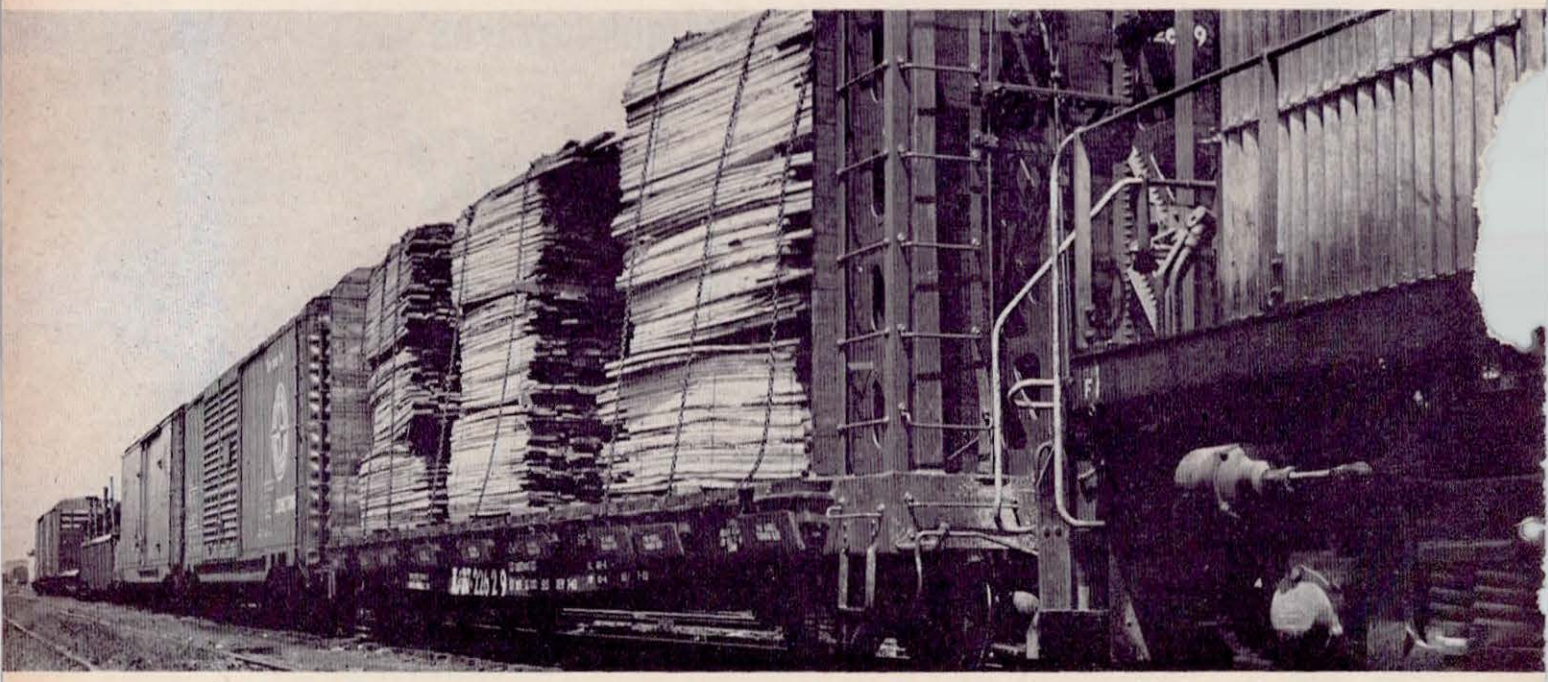
SALES, PARTS AND SERVICE IN ALL PRINCIPAL CITIES



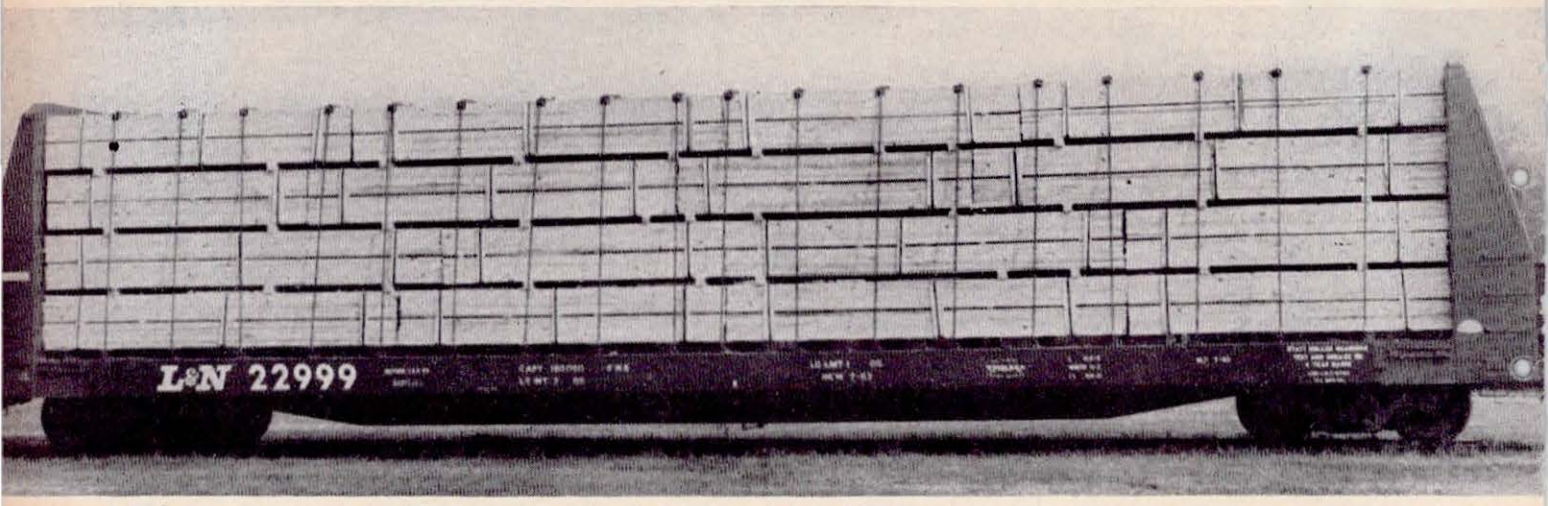
TR-1092



Cushioned 70-ton car carries palletized brick in 48½-foot space between 8-foot-high bulkheads.



Less fragile loads, like lumber, are hauled in non-cushioned cars with 10½-foot-high bulkheads.



▲ Shippers load over 59,000 board feet by fork-lift tractor in 100-ton flats with 58½ feet between bulkheads. ►

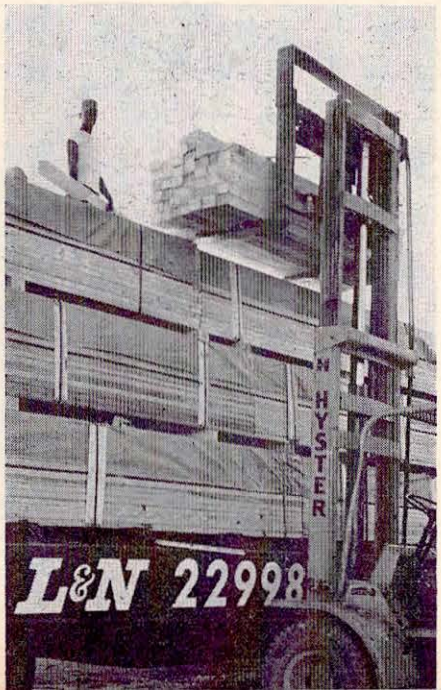
Shippers like bulkhead flats

Louisville & Nashville supplies cushioned cars for brick, non-cushioned for lumber. Big cars carry over 59,000 board feet.

Bulkhead flat cars acquired during 1963 are winning high praise from shippers over the entire L&N system. The new cars are the end result of the road's traffic research department investigation of equipment designed for the economical and efficient movement of pipe, lumber, brick, wallboard and poles.

● **Shipper's choice.** Economics dictated the use of two car designs to handle these commodities. The road's original intention was to have a single bulkhead flat to serve as a universal transportation medium. However, in discussing plans with L&N shippers, it became apparent that the movement of palletized brick, pipe and poles requires a cushioned car for satisfactory service and that a non-cushioned car with a maximum 10½-foot-high bulkhead meets the need for lumber and wallboard shipments.

The first design consisted of 100 70-ton cars in the series 22500-22599, built by Pullman-Standard. They have Hydroframe-40 cushion underframes and measure 48½ feet between 8-foot bulkheads for movement of palletized brick, poles and pipe. The cars are equipped with nine chain binders and 14 stake pockets.



● **Less load shifting.** The L&N reports the cars reduce rip-track work and delays in the movement of standard poles. Normally carried on open deck flats, these cars invariably find their way to the light-repair track for load adjustment before passing through each major terminal. This is especially true of freshly creosoted poles because their slippery exterior makes it practically impossible to retain them on standard flats without undergoing some longitudinal shifting.

The second group of cars consists of 50 non-cushioned flats in the series 22600-22649 built by the L&N early this year in its South Louisville, Ky., shops. These all-purpose cars for transporting lumber and wallboard are similar in equipment and dimensions to the P-S-built 22,500's, except for 10½-foot bulkheads. The underframes and bulkheads were furnished by General Steel Industries. Chain binders, when not in use, are placed in side pockets built on the outside and flush with the car deck.

● **Jumbo flat cars.** In July, Thrall Car Manufacturing Co. started delivery of 25 jumbo 100-ton bulkhead flats (series 22975-22999) equipped with floor stringers for fork lift movement of palletized lumber. The cars measure 67 feet 9 inches over coupler faces, 58½ feet between the 11-foot bulkheads, ten feet more than the inside length of the L&N's next-largest bulkhead flat. The floor width is 9 feet 2 inches. The cars have 18 chain binders and retractable side stakes.

The T. R. Miller Mill Co., at Brewton, Ala., is typical of the area lumber mills getting large loads with the 100-tonners. In late August, car 22999 was loaded with 59,008 board-feet of lumber (total weight 142,000 pounds) for Ft. Wayne, Ind. On September 5, car 22998 left with 59,392 board fleet (151,700 pounds) for Ft. Lauderdale, Fla. This was the largest single carload ever shipped by T. R. Miller.

The L&N says "Industry traffic managers, like Irene Murray of T. R. Miller, are quick to praise the new bulkhead flat cars. They carry larger, heavier loads, which are eligible for incentive rates. Shippers especially like the in-transit protection offered by the bulkheads and binder chains, which help prevent load shift during movement. The big cars offer ease in loading and unloading. With the latter, time is reduced at least 20%. Further, unloading costs are considerably reduced over such costs for conventional box cars."

The 22500-series cushioned flats, the first general purpose bulkhead flats on the railroad, are now handling a diversity of shipments: poles from Pensacola and southern Alabama; cast iron, steel and soil pipe from Chattanooga and the Birmingham district; lumber from Florida, southern Alabama, Tennessee, Georgia, and the southeastern Kentucky mills; wallboard from New Orleans; brick from Coral Ridge and Louisville, Ky., and Montgomery. As a typical example, the 22508 was loaded on July 5 at Coral Ridge, Ky., with General Shale brick weighing 150,900 pounds consigned to Builders Supply Co., Cincinnati, Ohio.

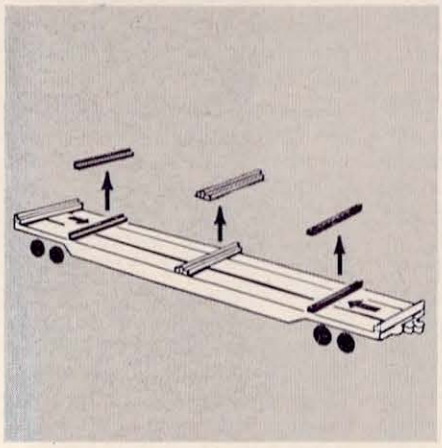
● **Side gates available.** Movement of palletized brick on bulkhead flats was originally proposed with a safety factor of side gates. It was found by the L&N in actual practice that, in many cases, side gates were unnecessary when using a cushioned car. However, floor pockets made of 1½-inch pipe were placed in all cars for positioning side gates when shipping certain building block materials, such as wall tile, which cannot be palletized effectively. The gates are five feet high by nine-and-one-half feet long and cost $500 per car set. They are built of 1⅜-inch pipe stock and covered with 2- x 4-inch wire mesh.

Suffix numbers on P-S cushion gear designations indicate total travel in both directions. The Hydroframe-40 has 20-inch travel in each direction.

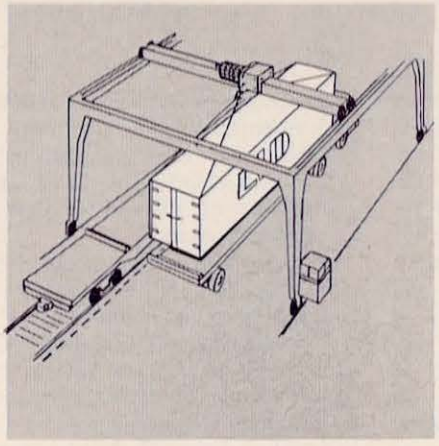
The L&N is now studying a possible bulkhead flat movement of aluminum ingots, 16 inches thick, 38 to 48 inches wide, and 10 feet long, averaging 6,500 to 8,000 pounds per ingot. Plans are also in process to obtain 61-foot inside length bulkhead cars during 1964 for 90-ton movements of steel products, such as angles, bars and channels.

Regardless of Length...

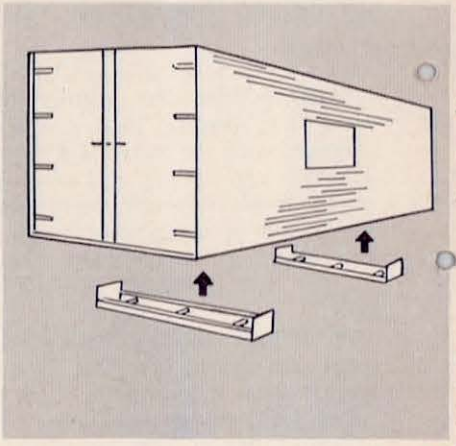
Your Containers Can Be



Movable or Removable Bolsters
Movable container bolsters can be mounted at any interval along the cushioned rail of the rail car, the SIDELODER, and the delivery unit to permit handling of any length container. Bolsters may be completely removed to convert rail cars for conventional use when desired.



Compatibility With Other Systems
The SIDELODER System is completely compatible in interchanged service with all existing systems of container handling.



Removable Bail Bar Assemblies
Removable, recessed bail bar station assemblies are available for temporary conversion of any container for handling by the Dempster SIDELODER System. Assemblies may be removed after container has been placed on rail car.

REA Re-orders on SIDELODER...Expands Coast-to-Coast UNIT-HAUL Service...

REA has announced that due to cost and service benefits from their UNIT-HAUL - SIDELODER System inaugurated in June between New York, Chicago and Oakland, the System will be expanded to Boston and Los Angeles with side service to Worcester, Mass., and Portland, Maine, via Boston, and Santa Ana and Van Nuys, California, via Los Angeles.

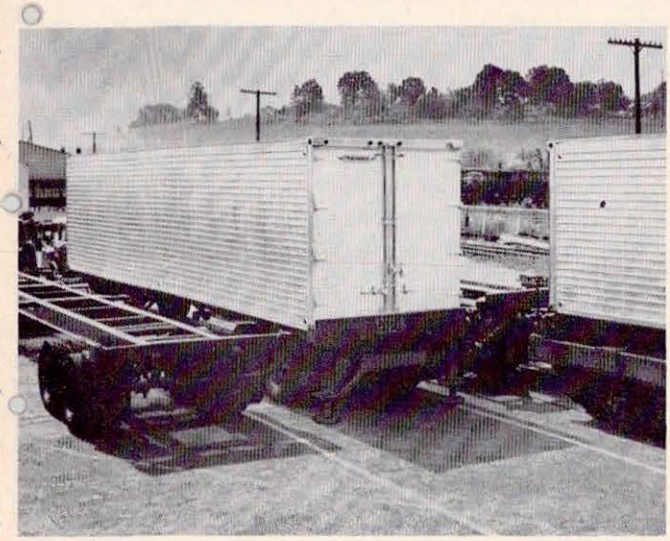
Five railroads are involved in the fast transcontinental and interregional service at passenger train speeds: New York Central, Rock Island, Burlington, Union Pacific and Southern Pacific. In December, Santa Fe will become the sixth railroad hauling the container cars.

REA President, William B. Johnson, cited "dramatic savings in shipment handling costs plus better shipment protection and improved service to shippers and consignees", in justifying this major expansion after only three months of operation.

Photo above shows Dempster SIDELODER putting an REA container on a rail car at the New York Terminal Team Tracks.

Adapted for Handling

*by the New SIDELODER.**



The dramatic photos above show the new Dempster SIDELODER 40 ft. trailer model transferring a 40 ft. container from a rail car to a lightweight delivery unit in less than two minutes. The transfer is accomplished smoothly, quickly and free of shock by action of the SIDELODER pulling and pushing the container with its twin bail hooks, which engage the bail bar assemblies mounted flush under the container. All operations are performed by one man from controls in the cab. The SIDELODER goes anywhere, works anywhere, travels at over-the-road truck speeds to distant tracks or spurs to perform this job.

Rail-to-Door Container Service

Thanks to the new 40 ft. Dempster SIDELODER Trailer Model, rail-to-door container service is now a practical reality with any length container. The standard SIDELODER models handle 20 and 40 ft. containers. However, through the use of movable bolsters, which hold the containers in transit, any cushioned rail car can quickly be adapted to handle any length container, as well as the SIDELODER transfer unit and lightweight delivery unit. The bolsters which hold the corner castings of the container in transit are simply moved to the desired length and bolted down.

Another new development is the removable bail bar assembly which can temporarily convert any container for use with the SIDELODER System. As the container is placed on the rail car, the bail bar assemblies are removed and another set attached at the destination for delivery service. The bail bar assemblies are recessed under the containers to permit shipboard or stacking at rail side where desirable.

The SIDELODER System is completely compatible and interchangeable with other systems such as crane and fork-truck handling.

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Cost finding: On the right track?

Rates, high when costs are figured on thin traffic, might be lower if costs were based on heavier volume that reduced rates would induce — benefiting both the public and the railroads.

By Leon M. Rosenson*

Cost research presents railroad management with problems as well as promise. The purpose of this article is to point out a basic weakness of cost-finding as it is practiced today, and to suggest research which should lead to more realistic and more useful cost estimates.

First, a brief look at the basic approach to cost analysis which has been used by the ICC, by transportation consultants, and by many railroads for several years. (For brevity's sake we will consider only freight costs, but the approach here outlined applies to passenger costs as well.[1])

1. The first step in constructing a cost "formula" is to analyze the manner in which each expense varies with traffic volume. It might be observed, for example, that for each 10% change in traffic volume on a given railroad in recent years, Maintenance of Way and Structure expense varied 8%. Or study might show that during a single recent year, M of W&S expense varied with the difference in traffic densities on several railroads in a ratio of 0.8 to 1. In either case it would be concluded that M of W&S expense should be considered 80% variable or "out-of-pocket." Out-of-pocket expenses are those which vary with the amount of traffic handled.

2. At the beginning of each year the expenses for the previous year, as reported to the ICC on "Form A," are separated into fixed and variable components. If total M of W&S expense for the previous year was $1 million, tnd this expense is considered to be 80% variable, then it would follow that our out-of-pocket M of W&S expense was $800,000 last year.

3. The fixed portions of the expenses ($200,000 in the M of W&S example) are disregarded for rate-making purposes. That is, we disregard the portion that will be incurred whether or not any business is handled, and which can therefore be considered as "overhead." Expenses brought about by wind and rain damage to track and right-of-way, for example, would in theory be part of the 20% of M or W&S expense excluded from our o-p cost calculation since this expense is not affected by volume of traffic. Interest is confined to those costs which resul: from traffic movements, because only those costs can be used for setting floors under rates and for evaluating operating alternatives. If, for instance, the out-of-pocket cost of handling certain traffic is $1 per cwt, then any rate over $1 per cwt. will recover the out-of-pocke: cost of handling the traffic and will also help defray fixed overhead expense. Traffic that earns revenue greater than o-p-c is always worth holding because of its contribution to overhead and/or to profits, even if it does not earn revenue equal to "full cost." ("Full cost"—or "fully distributed cost"—is determined by distributing overhead expense on some arbitrary basis over the various units of traffic moved. Each movement is allocated a portion of fixed expense which, when added to the movement's out-of-pocket cost, gives an estimate of "full cost" for that movement).

4. Once the estimates of out-of-pocket expenses for the year prior to our study are completed, the next step is to spread these costs over the appropriate service units developed from operating statistics, as reported to the ICC on Form A for the previous year. M of W&S expense is usually assumed to vary directly with the number of gross ton-miles operated over a given line. If we ran 1,600,000,000 gross ton-miles over our railroad during the year prior to our analysis, and we had $800,000 of out-of-pocket M of W&S expense, the cost analyst would then say that our "unit cost" of M of W&S was $.0005 per gross ton-mile or 50 cents per thousand gross ton-miles (MGTM). Similarly, repairs to freight car wheels, axles and brakes are usually assumed to vary directly with car-miles operated; so the out-of-pocket portion of last year's expense of repairing car running gear is divided by the number of car-miles operated last year to arrive at an out-of-pocket repair cost per mile. The cost "formula" is simply a tabulation of the several unit costs developed in this manner. It is assumed that costs based on the previous year's experience are sufficiently accurate for use in most current cost research problems. There are, of course, many modifications and refinements of the steps just described, but the basic procedure is the same.

When cost finders use the phrase "out-of-pocket expenses" they usually mean expenses that vary over a "mid-term" period of about five years. As a rule, they do not attempt to develop formulas that show costs which vary immediately with each increase in business (such as the small added fuel expense when one car is added to an already scheduled train); nor do they include as out-of-pocket those expenses which vary only over the very long run, since this would cover practically all expenses, including those normally thought of as overhead. In effect, the formulas provide "average" out-of-pocket costs, meaning costs which can be expected to vary over an average period of time as business volume fluctuates from year to year.

Once the cost formula is complete, it is used to provide the traffic department with "floors" below which proposed rates cannot be allowed to go. The cost analyst determines the number of service units (ton-miles, car-miles, switching minutes, etc.) that will be generated by the traffic for which a new rate is being considered, and multiplies these units by the appropriate unit costs from the formula to arrive at an estimate of the out-of-pocket cost of handling the traffic. Traffic men establish the rate only if it will more than cover the estimated cost. The formula is quite flexible and can be applied to operating department problems as well as those of the rate-makers.

So much for a brief and general de-

(*Continued on page 84*)

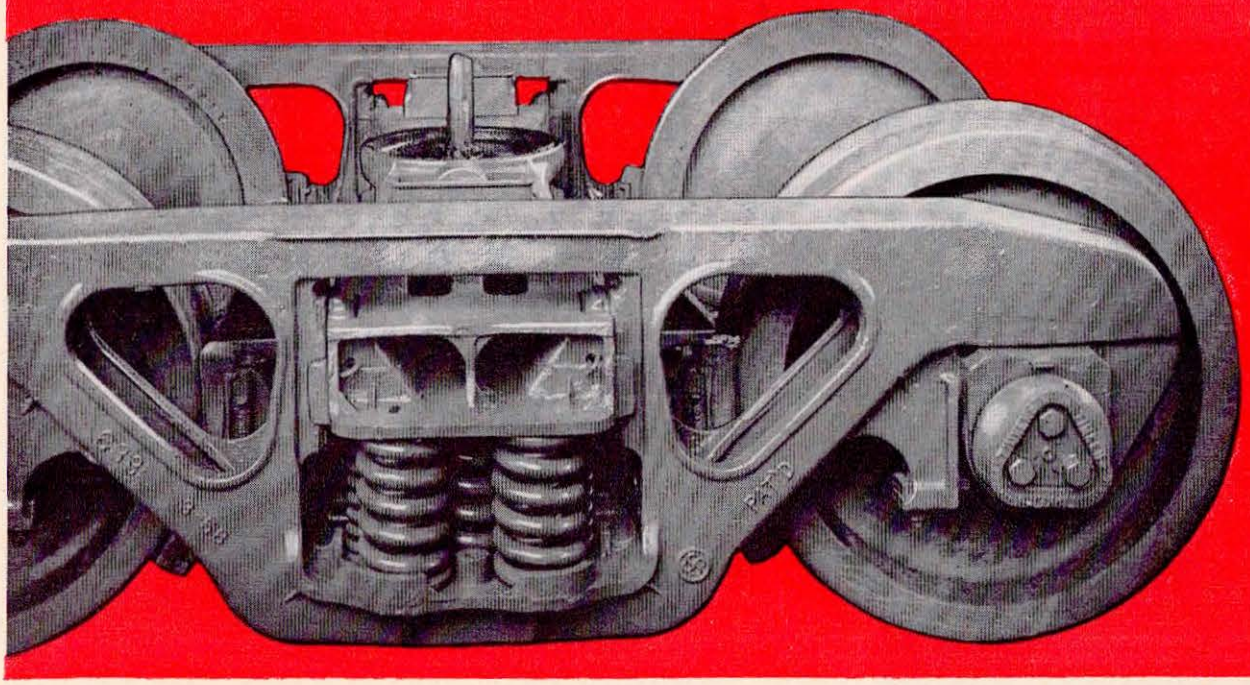
Complex Problem Clarified

This statement of the fundamental problems of railroad cost finding is written in language easy for any layman to understand. It is the simplest explication of this critically important subject which we have ever seen—informative whether or not one agrees with the author's conclusions.—EDITOR

*Mr. Rosenson is an assistant trainmaster on the Southern Pacific, with previous experience in that company's transportation research department. The opinions expressed are Mr. Rosenson's—not necessarily those of his employer.

[1]For a fuller description of the technique, and the several variations and refinements which can be developed from it, see E. C. Poole's book: **Costs—a Tool for Railroad Management.** 1962, Simmons-Boardman Publishing Corp.

STAMINA



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Cost-finding fundamentals

(Continued from page 80)

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What, then, is wrong—why do we speak of a "basic serious weakness?" The trouble springs from failure to differentiate accurately between what we label "variability" of costs and the more meaningful concept of utilization of capacity. *Present cost research fails to recognize that expense levels are determined to a large extent by the degree to which capacity is utilized;* and that there are few expenses which vary over the mid-run *solely* because of traffic fluctuations. By basing our separation of fixed expenses from variable or out-of-pocket expenses on statistical studies of past experience, we do not give adequate consideration to the all-important factor of utilization of capacity.

Present cost formulas contain the tacit assumption that capacity will be utilized to about the same extent in the future as it has been in the recent past. Consider, for example, train and engine crew payrolls. This expense is often considered 100% variable because, if there were no traffic, no trains would run and there would be no wage expense. The unmentioned companion assumption is that all trains presently being operated are running at capacity, since, if this were not so, the payroll would not increase proportionately with traffic volume. But, if there is room for more cars on some trains already running, then train and engine crew payroll expense would not increase proportionately with traffic and cannot be considered 100% variable. We have unused capacity on some trains which should be put to profitable use if possible, but this important fact is overlooked by our present costing methods.

Consider, as another example, terminal switching and clerical expenses. At present cost researchers simply note that in the past our terminal expense has varied in a certain ratio with the number of cars handled in our yards. But their study of past experience reveals nothing about how much capacity was left unused at the highest level of traffic recently attained; and what our unit costs might have been if capacity had been utilized to a greater extent, or to the fullest possible extent. No matter how refined the statistical techniques employed, a correlation of past traffic volume and past terminal expense cannot provide us with realistic estimates

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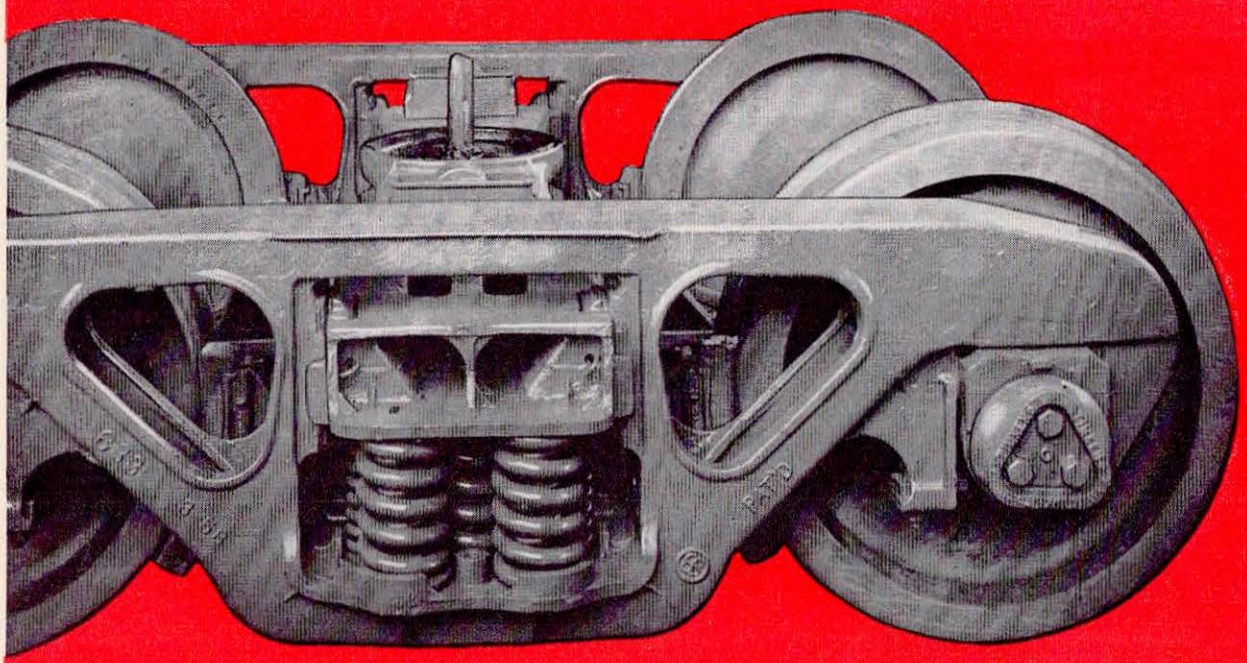

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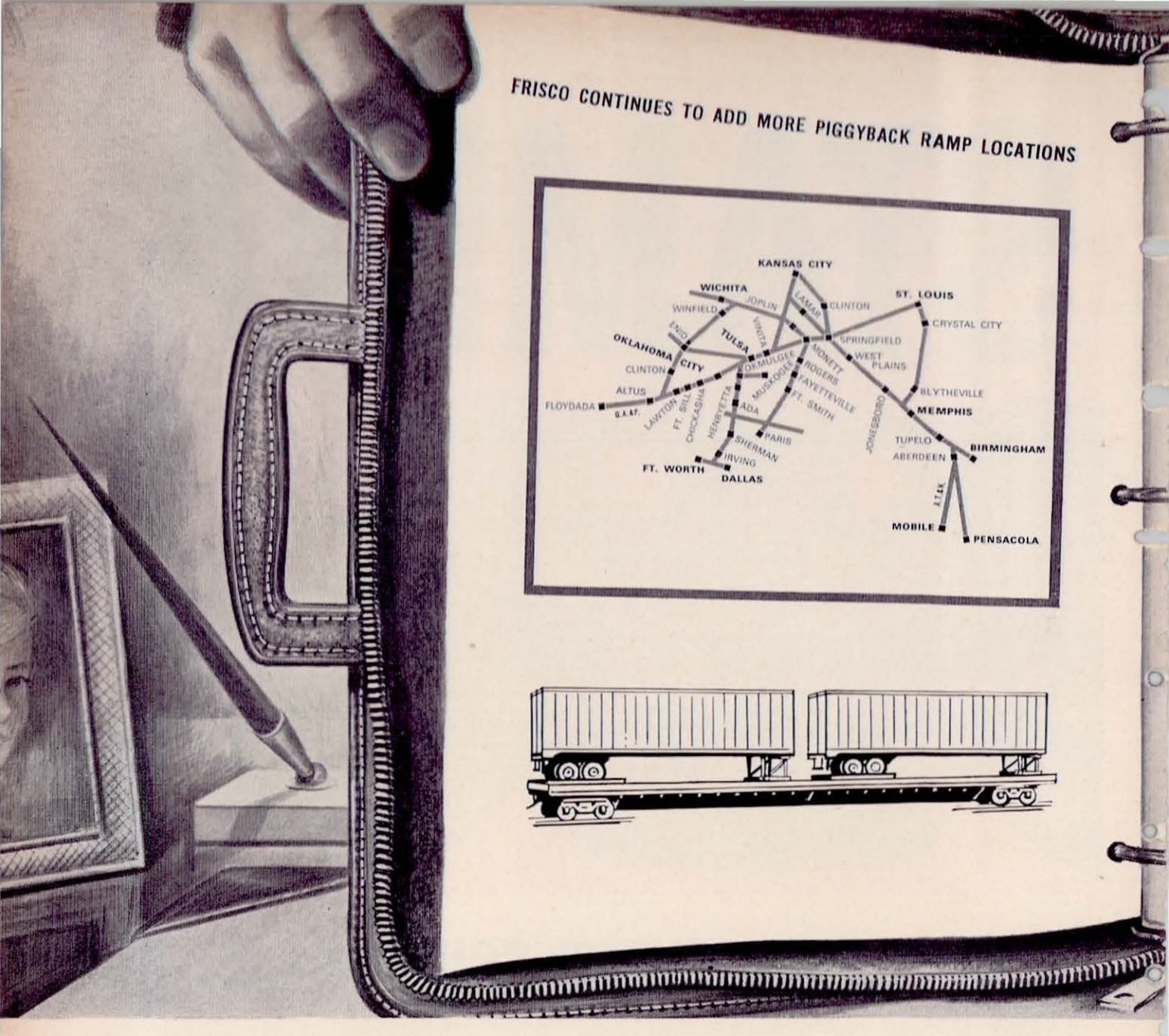

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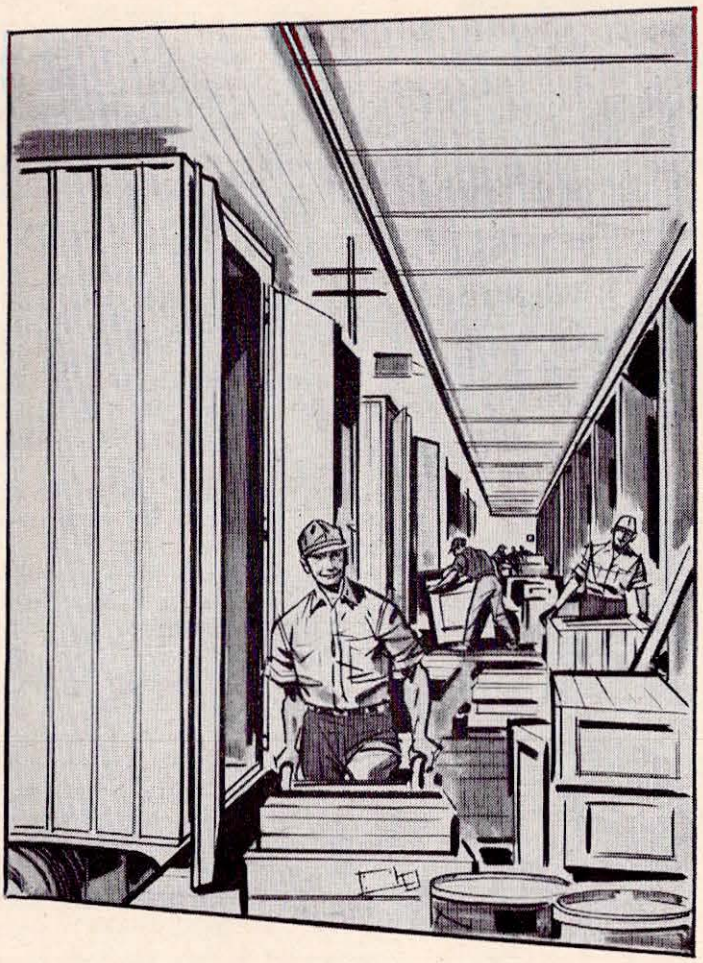

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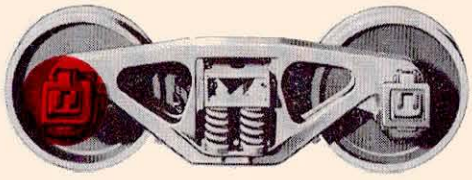

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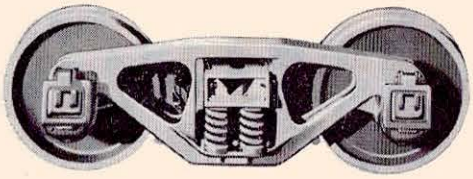

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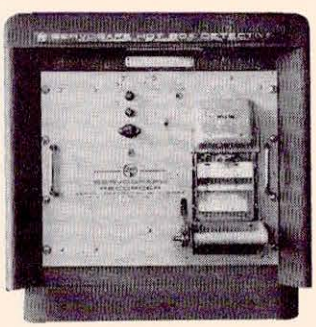

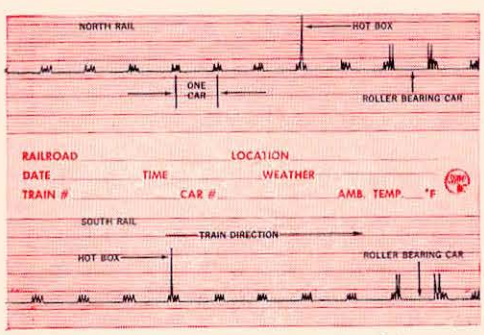

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of what our costs would be if we were putting our yard capacity to significantly greater use.

Look again at M of W&S expense. At present we plot several points relating traffic densities to M of W&S expense on several railroads for a recent year. When we connect the several points to form a graph, we note from the shape of our graphed line that M of W&S expense seems to vary in a ratio of about 0.8 to 1 with density and we conclude that M of W&S expense is 80% variable. But we know literally nothing about the real shape of the curved line beyond the limits of our sample. All we can do is extrapolate the curve in a straight line and hope it may be right. Yet, in fact, we cannot assume, if the railroads in our sample had had a higher average traffic density, that the M of W&S expense would still have been 80% variable. We cannot learn from the graph whether unit costs would decline if utilization of capacity were increased. It is incorrect to conclude that because our M of W&S expense was $.50 per MGTM last year based on an estimate of 80% variability it would be the same if we could gain a lot of additional traffic in the future and put our roadway to fuller use.

The serious weakness of our cost research, then, is that it emphasizes the past rather than the future. We need a cost system with which we could estimate what our unit costs might be if we could increase our traffic considerably. Only then could we estimate the effect of radical changes in rate levels (especially on commodities not now being moved by our railroad) to help increase capacity utilization and profits. Our present cost methods prevent us from making such estimates and thus often hinder rather than help us in bidding effectively for traffic which, if secured, would increase net operating revenues.

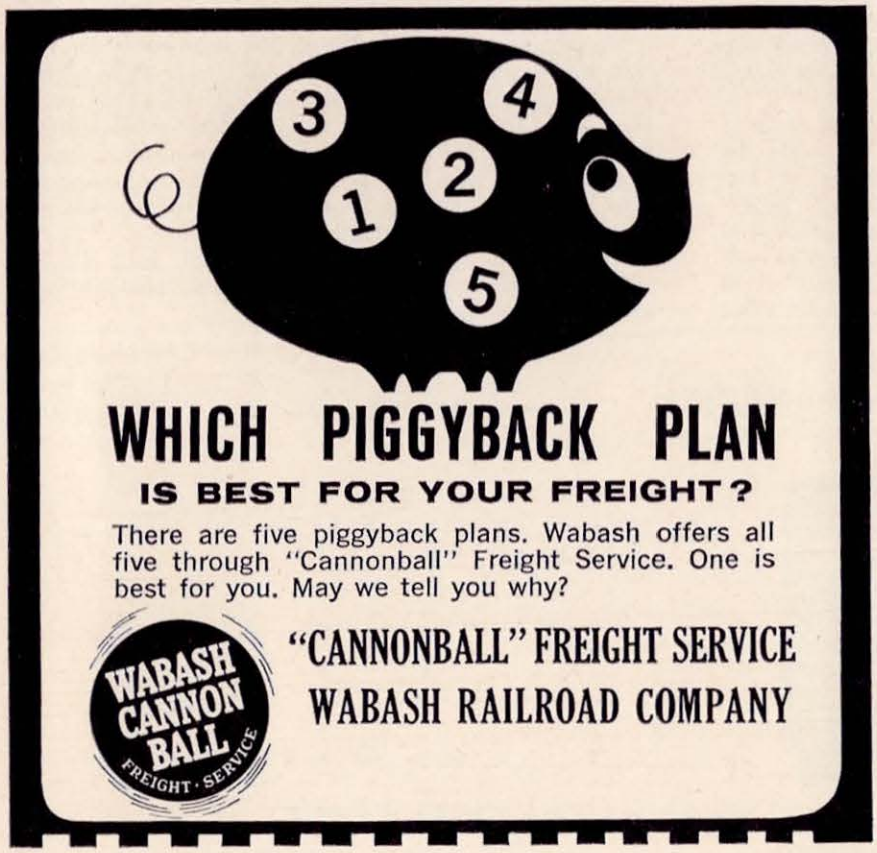
Because they do not reflect relative capacity utilization, current cost formulas almost invariably produce relatively high out-of-pocket cost estimates for lines handling only small amounts of traffic, and relatively low costs for lines that are heavily used. This leads to the vicious circle that is the bugaboo of all rate-makers. The less traffic a line has, the higher its costs are considered to be. Rate officers are required to set high rates to cover costs estimated in this manner which, in turn, exclude additional traffic that the line has the capacity to handle. This is the same vicious circle that results from the use of "full costs" in rate-making. Railroads have argued time and again before various regulatory agencies against the use of "full costs" as floors under rates, because use of these costs may lead directly to ever-declining utilization of capacity. Yet the railroads themselves have adopted systems for determining out-of-pocket costs which suffer, although admittedly to a less serious extent, from the same flaw.[2]

Let us illustrate this point with a simple example. Suppose we have a branch line running from the main line of our railroad at A to station B at the end of the branch. Assume one local train operates over the branch as a turn-around, and that the local handles an average of 10 inbound loads and 10 outbound empties each day. This would be considered a "high cost" operation, because the various out-of-pocket expenses of operating the branch (the wages of the crew, for example, which are often considered 100% variable) are divided up between only ten loads per day, giving a high out-of-pocket cost per load. This high cost may discourage management from accepting additional traffic over the line. So if a manufacturer wants to locate at B, and his operation would add one load per day to the traffic on the branch, the railroad may have to turn him away on the ground that, even with the additional car, the branch would still be such a "high cost" operation that the rates required would not cover out-of-pocket costs. The vicious circle is completed. We find ourselves in the embarrassing position of telling the manufacturer that, although we don't want his factory on the branch, we would be glad to have him locate some other place on our railroad that already has more traffic and thus "lower costs."

Now let us assume that the branch could handle 50 carloads per day without the addition of personnel, motive power, or trackage, and that we consider 50 cars per day to be the capacity of the line under present conditions. Suppose also that we had a cost formula with which we could estimate the o-p-c per carload at a volume of 50 cars per day; and that we were to use this cost as the "floor" under rates. The traffic department could then solicit all traffic that would provide revenue above this lower, capacity-based o-p-c and begin putting the unused capacity to work.

The present distortion of traffic patterns affects main lines as well as branch lines. Suppose, for instance, that there are two main line routes of the same railroad between the cities C and D, each of which handles some of the traffic between the two cities. Management decides in the interest of economy to abandon the eastern route and run all traffic between the two points over the western line. When our cost formula is revised the following year, the o-p-c of moving traffic between C and D is seen to drop significantly because the western route is being used at a higher percentage of capacity than either route had been previously. The

[2]For a clearly reasoned argument against full costing, see the editorial "Full Costs Can Kill Us" in the April 9, 1962, issue of Railway Age.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"CANNONBALL" FREIGHT SERVICE
WABASH RAILROAD COMPANY

KEYSTONE SHOCK CONTROL

Here's what this means to you

Safer, more effective cushioning protection for your cars and lading because Keystone SHOCK CONTROL Units continually function with the high degree of efficiency and performance they were designed to provide, both in buff and recoil.

Absolute minimum (if any) maintenance costs on Keystone SHOCK CONTROL. The design of the Keystone SHOCK CONTROL does not depend on frictional parts which introduce wear, and require more maintenance.

No valuable time and revenue lost while your cars and cushioning systems are out of service, because Keystone SHOCK CONTROL units have proved to be, and are continuing to be, virtually trouble-free.

Make certain you hear the Keystone story before you buy or specify any cushioning device. Your nearby Keystone Representative will be pleased to give you additional information and show you a rapidly growing list of over 33 well satisfied Class I Railroads.

Write for your copy of the Keystone SHOCK CONTROL catalog.

KEYSTONE RAILWAY EQUIPMENT COMPANY

310 SOUTH MICHIGAN AVENUE • CHICAGO 4, ILLINOIS

SALES OFFICES: ALEXANDRIA • BALTIMORE • CHICAGO • CLEVELAND • OMAHA • PHILADELPHIA
SAN FRANCISCO • ST. LOUIS • ST. PAUL • MONTREAL, QUEBEC, CANADA

OTHER KEYSTONE RAILROAD PRODUCTS: DUOLOC • MONOLOC • PORTLOC • CAST STEEL DOOR HOPPER FRAMES

THIS IS THE WAY TO RUN A RAILROAD... ECONOMY CRUISE AT RECORD SPEED

Moving boats quickly and economically to distant dealers is vitally important to boatbuilders. Midwest factories solved the problem by using NP Piggyback service. NP moved boats to west coast dealers, some 1700 miles in less than four days with substantial savings of time and money.

You're not a boatbuilder? Whatever you ship, NP can be helpful. Let us tell you about our new equipment, new methods and new ways to save on shipping costs.

This is the way we run NORTHERN PACIFIC RAILWAY

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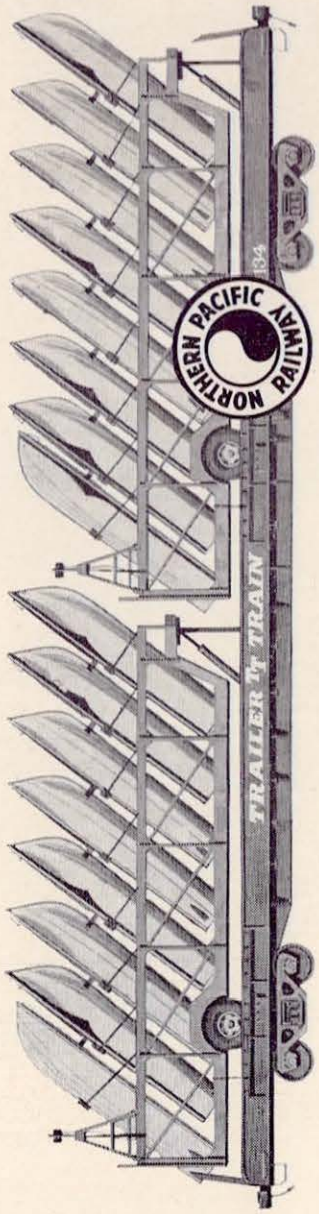

(Reference No. 90a)

if the bridge traffic declines, or management decides to handle it over a different route, the formula would come up with the absurd conclusion that the o-p-c of handling traffic between E and F had suddenly increased. It might even invite the absurd conclusion that traffic which was profitable when bridge traffic was moving between E and F is now being handled at a loss.

We should expect our unit costs to vary with changes in procedures such as the substitution of track maintenance machines for hand labor, but *not* with changes in business volume over the mid-term period. As the number of ton-miles operated over our railroad varies from year to year we expect our total M of W&S expense to vary, but the unit out-of-pocket cost per MGTM should not vary just because of the change in volume. If our estimates were correct and lived up to our definition of out-of-pocket costs, our out-of-pocket cost *per unit of service* would remain constant over the mid-term period. with the exception of those changes brought about by changes in actual operating techniques.

There are many circumstances, of course, where a railroad or portion of a railroad is already operating at capacity. In these cases increased traffic might bring about increases in unit costs. But in many cases added traffic could help put unused capacity to work and add to overall profits. Our present techniques do not provide cost reckoning that reflects this fact.

We turn now to the question of what can be done to overcome the faults of present cost-finding methods.

H. O. Whitten of the Chesapeake & Ohio has developed a theoretical cost-finding technique which he believes might some day provide much more rational costs based on relative utilization of capacity[3]. He admits that his method, although theoretically correct, cannot be used at present because of the difficulty of accurately determining the real capacity of a railroad or portion of a railroad. But he believes that this problem can eventually be solved and that his theories could be put to practical use in the future. His method deserves attention and study, since it holds promise of yielding capacity-based out-of-pocket costs, free of most of the faults found in our present cost estimates.

However, we do not currently have a workable system for providing costs based directly on estimates of capacity. We should therefore take steps to provide ourselves with costs as closely approximating capacity-based costs as

[3]"Utilization and Capacity Costing and Rate of Return Measurement," Presented at the Transportation Research Forum of New York, New York City, Dec. 6, 1960.

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Numbers and letters shipped to you prespaced in numerical sets. Self-adhesive backing allows instant application in the field without special tools.

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Numerals and letters manufactured of vinyl plastic materials guaranteed for the life of the trailer.

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Available in 4" to 12" die-cut style as well as standard 4" block printed style. Assorted colors.

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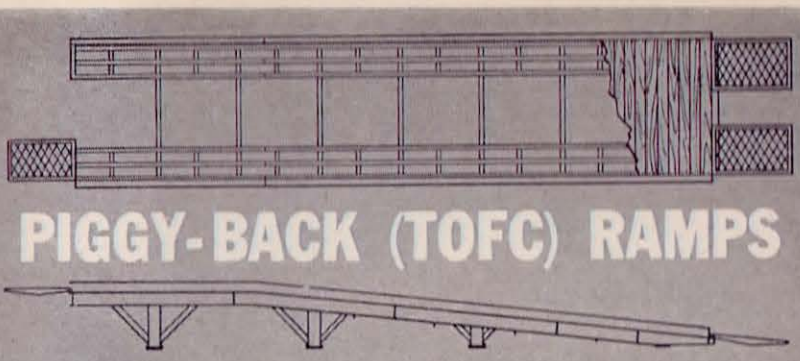


PIGGY-BACK (TOFC) RAMPS

NEW

The new Buck PB-2 ramp shown in the above drawing can help increase your revenue in piggy-back (TOFC) operations. It's designed as a temporary ramp . . . use it at a location where loading and unloading potential is unknown. Low initial cost. Can be easily moved to another location.

The Buck PB-1 shown below is a rail-mounted unit with wheels for lateral movement to serve several spurs, especially the ones where flatcars are received with the tractor ends of the trucks facing away from unloading dock.

The Buck PB-3 portable ramp can be transported as a trailer around the terminal yard or over the highway by a regular tractor with an SAE fifth wheel.

Should we send you prints, other details of these new Buck ramps?

BUCK UP!

BUCK EQUIPMENT CORPORATION
723 Anderson Ferry Road
Cincinnati, Ohio 45238
Phone (area code 513) 471-8580

optime factum

lower costs allow us to seek traffic we could not obtain before the abandonment, because our assumed costs had prevented the establishment of rates sufficiently lower than competitors' rates.

It should be remembered that the supposed reduction in costs shown by the formula was not brought about primarily by savings made from abandoning the eastern main line. It occurs in large measure simply because more traffic is being handled over the remaining route, and the lower cost would occur in the formula whether or not the eastern line were actually abandoned. But it is apparent that management should have been seeking new business even before the abandonment, since it could have helped utilize capacity to a greater extent and would have made a contribution above out-of-pocket costs if such costs had been determined on a capacity basis, instead of on costs based on last year's traffic volume. If the additional traffic now sought is considered profitable because more traffic is moving over the western route, it would have been profitable all along, even though our present cost formula would have led to a contrary conclusion.

For a further example, let us suppose there is a single main line between the cities E and F. For some reason (let us say the initiation of piggyback service) total traffic over the line increases by 10%. Next year our cost formula tells us that we have lower o-p-c between E and F. This supposed cost reduction results, not from any change in operating procedures or other economies, but simply from the handling of increased traffic. Armed with the lower o-p-c, rate-makers can now seek to gain additional business by offering greater rate differentials to shippers now using competing services. Here again we see a situation in which it should have been possible to offer the rate reduction *before* traffic increased, in order better to utilize our capacity by handling traffic that could provide a margin above capacity-based o-p-c. If the additional traffic is considered profitable *after* the 10% increase in business, it surely would have been just as profitable if piggyback service had never been started.

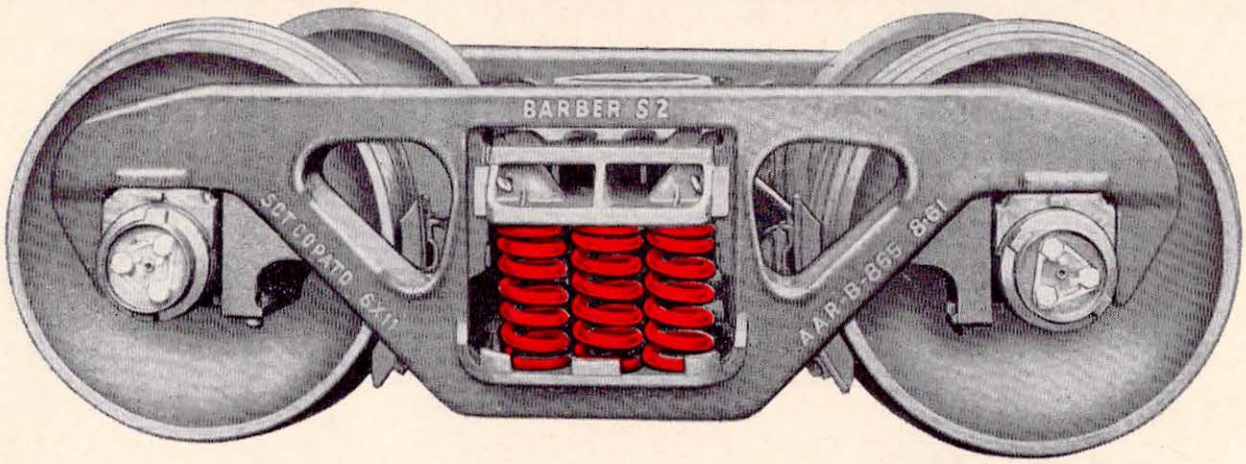
Now suppose that traffic being "bridged" over this line increases. That is, movements between a point to the west of E and a point to the east of F increase, and this traffic is bridged over the line between E and F. The present cost formula would tell us that there is now lower o-p-c between E and F, and the rate-makers could go to work to gain additional business between E and F which they should have been allowed to bid for all along. Then,

SHIPMENTS ARRIVE DAMAGE-FREE...

and truck maintenance is reduced

BARBER
Stabilized
TRUCKS

1932



Barber stabilized trucks give a smoother, shock resisting ride at high speeds and under heavy loads.

And, no other easy riding device has demonstrated such long life and protection of major truck parts.

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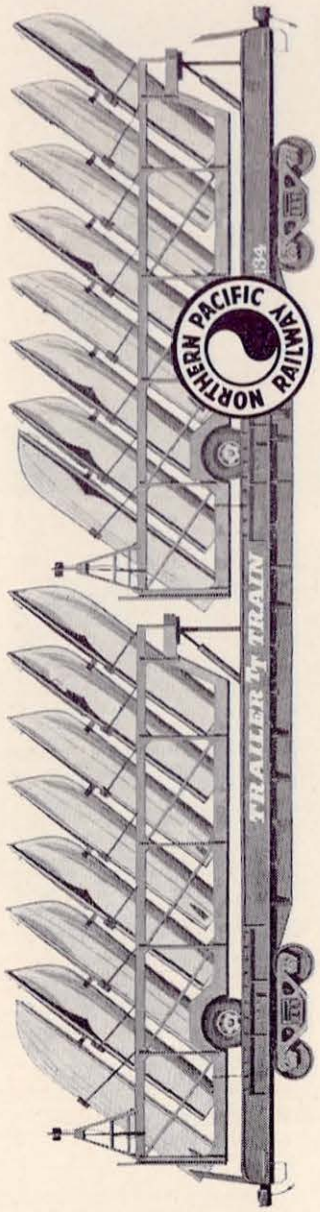

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Available in 4" to 12" die-cut style as well as standard 4" block printed style. Assorted colors.

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Made of brilliant reflective "SCOTCH-LITE"® Brand film, for positive identification day and night, or economical "SCOTCHCAL"® Brand film.

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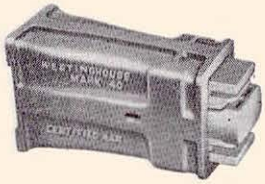
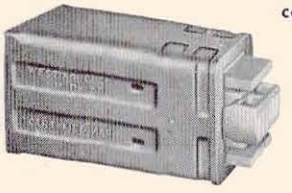
a modern high-capacity Westinghouse gear

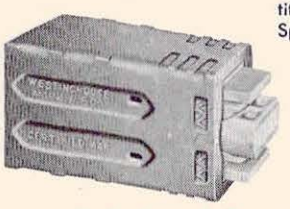
. . . FOR EVERY POCKET AND PURPOSE!



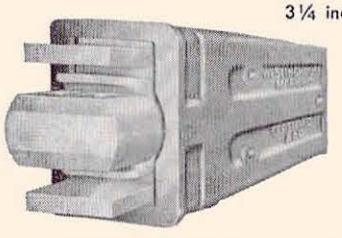
MARK 40 Friction Gear for 24⅝ inch pockets; 3¼ inch travel. A.A.R. Certificate No. 35 (A.A.R. Specifications M901-53).



MARK 50 For 24⅝ inch pockets; 3¼ inches travel. Friction principle. A.A.R. Certificate No. 41 (A.A.R. Specification M901E-59).



MARK R500 A.A.R. Certificate No. 42; also met A.A.R. Specification M901E-59. Combination friction-rubber, for 24⅝ inch pockets; 3¼ inches travel.



MARK 80 For 36-inch pockets. Extra high capacity friction gear. A.A.R. Certificate No. 37 (A.A.R. Specification M901C-56). Has 4¾ inches of travel.

There is a Westinghouse "Mark" High-Capacity Friction Draft Gear to complete your specifications. We recommend an approved and qualified Westinghouse Draft Gear . . . right back of the coupler . . . to absorb INITIAL SHOCKS, protect whatever underframe device you may install, and prevent damage to car structure (reduce maintenance costs!). Also . . . in standard freight cars, Westinghouse Gears alone provide tremendous all around protection!

. . . *and Westinghouse*

DUAL CUSHION *arrangement*

TWO Mark Gears end-to-end back of each coupler! DOUBLE capacity, double protection for car, underframe device and lading. Use combinations of Mark 50-80, Mark R500-80, Mark 80-80; reaction force remains less than 500,000 pounds. A.A.R. Approved.

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CARDWELL WESTINGHOUSE

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Canadian Cardwell Co., Ltd., Montreal 2, Quebec

"Yes, there is a better way to clean railroad cars"

"We're proud of the fact that the railroads come to us with their ventilating, filtering and maintenance problems. You see we provide free engineering services with no strings attached. If we don't come up with what they want and can use, it costs them nothing. And we've been doing this successfully since 1939.

"That's how we developed the LCM car cleaner—a large fan that attaches to the door of a passenger car or locomotive and draws air at gale velocity through the car, carrying all dirt and debris with it. One man with an LCM can clean two cars in an hour.

"The LCM car cleaner is the direct result of a superintendent's remark: 'There must be a faster and cheaper way to clean cars and locomotives!'"

R. S. Farr

PRESIDENT, FARR COMPANY, LOS ANGELES
MANUFACTURERS OF FILTRATION EQUIPMENT FOR THE RAILROAD INDUSTRY

possible. As Mr. Poole has pointed out, ". . . railroads should not await perfection in a formula before taking action. They should act on the best method available and improve it over the years. There is no use going broke awaiting the perfect formula, which will never come."[1] Certainly our present cost estimates are better than no cost calculations at all, but we should try to improve them as much as possible. The two steps outlined below might help:

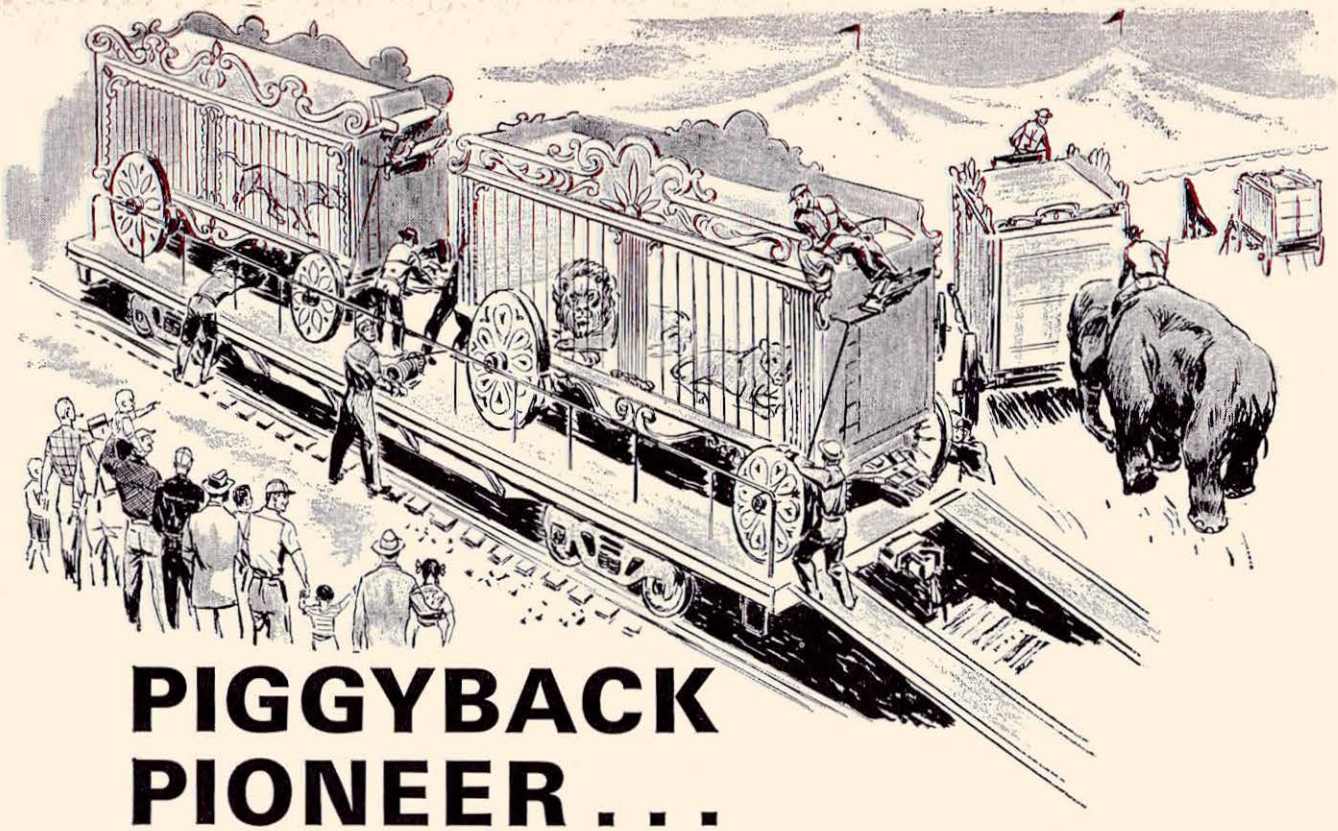
I. Cost estimates should be prepared from estimates of *potential* traffic rather than from statistics of actual operations of the previous year. Since we cannot at present accurately determine either our real capacity or our unit costs at full capacity operation, we should attempt to answer the following questions instead: *How much traffic can we reasonably expect to capture with selective rate cuts, and what would our unit costs be if we had the additional traffic?*

In other competitive industries, pricing decisions are based on estimates of costs at various potential levels of production, and on estimates of future sales volume at various price levels. These estimates are combined by management into a final estimate as to which level of prices, sales and costs will return maximum profit.

Note that the word "estimate" has been used several times in the preceding paragraph. Just as there is no easy formula for determining optimum prices, there is no pat formula based on statistics from prior years, that will produce accurate cost figures. Our present method of relying solely on statistics of past operations may make costs seem exact and unspeculative, but it has the harmful effect of keeping sales volume below optimum potential levels.

Suppose the total traffic of all commodities between two cities averages 5000 carloads per year. Suppose also that our traffic department estimates that, if rates on all commodities we are not now handling were slashed 50% (a purposely over-simplified example), total volume would rise 100% to 10,000 carloads per year. To determine whether or not such a price reduction would be profitable, it is necessary to compare total expected revenue at the new sales volume with costs determined on the basis of *expected* traffic, rather than on the basis of present or past traffic. Unless the railroad line between our two cities is already being operated at capacity, costs will probably not rise at the rate predicted by our present cost formulas as traffic increases. Thus a cost formula based on estimates of potential traffic rather than

[1] "ARR Freight Underpriced by $243 Million?" By E. C. Poole, Railway Age, August 20, 1962; pg. 41.



PIGGYBACK PIONEER . . .

LONG BEFORE TOF, the practical advantages of piggybacking were demonstrated by circus trains loaded with colorful, curlicued wagons and other "big top" paraphernalia.

Today's application of TOF is a far cry from Barnum & Bailey . . . it is a simple, yet highly-developed, combination of rail-highway advantages, including substantial savings for shippers.

KANSAS CITY SOUTHERN Lines

Piggyback facilities where indicated by stars

A Kansas City Southern traffic man, headquartered nearby, will be glad to consult with you about TOF service to fit your exact requirements.

J. W. SCOTT
Vice President—Traffic
KANSAS CITY 5, MO.

Rocky, the Great Northern goat, says

"If you've been out around Index, Washington in the Cascade Mountains lately—and you've seen a lot of heavy grading work and bridge-building going on—remember this: it's all aimed at ironing out curves in Great Northern's line. Which fits right in with our main purpose in life: to transport your freight across GN's route as quickly and safely as possible."

GN

GREAT NORTHERN RAILWAY

(Reference No. 94a)

on past volume levels would reflect the possibility of increasing profits by lowering rates and putting unused capacity to work.

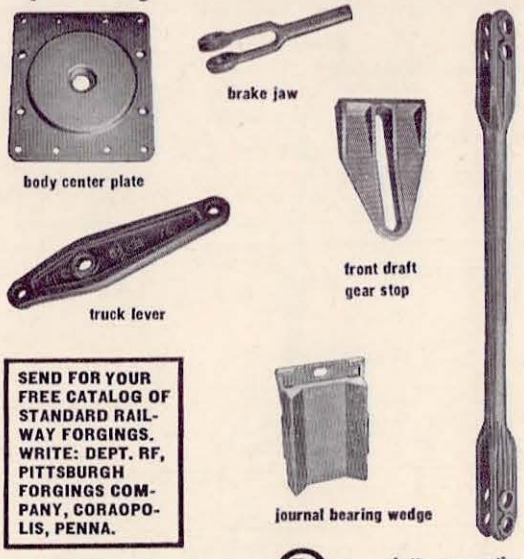
To develop such a cost system we would have to wrestle with some sticky problems. For example, we would have to estimate fixed expenses directly in terms of payrolls, material costs, etc., instead of as percentages of total expense. To determine fixed M of W&S expense (for instance), we would estimate the annual wages, equipment rental, material costs and other expenses necessary to maintain our track and structures in a state of readiness if no traffic were actualy moving. Next (to continue the M of W&S example), we would have to estimate the costs of maintaining our roadway at the volume of traffic we hope to achieve by adjusting rates. By subtracting fixed expense from expense at the hoped for traffic level, we would arrive at a figure for potential out-of-pocket M of W&S expense. Finally, we would divide out-of-pocket expense by the gross ton-mile to be generated at the potential traffic volume, to determine our out-of-pocket unit M of W&S cost. Similar steps would be required for Maintenance of Equipment, Transportation, and other expense categories. We could never expect our answers to this sort of problem to be exact. Our best estimates would have to do, even though in many cases our judgments would be intuitive.

A formula based on traffic expectations would require close cooperation between all departments of a railroad, and the willingness on the part of each to substitute risky estimates of future potentials for the seemingly "safe" statistics of the past. Traffic men would have the difficult job of estimating the total potential increase in traffic from selective cuts in rates on commodities now moving by highway or water carriers. Operating officers would have to produce estimates of train schedules, equipment, track maintenance, etc., that would be necessary at hypothetical traffic levels. Cost analysts would be required to develop new out-of-pocket unit costs on the basis of hypothetical expenses and service unit statistics reflecting the potential new overall traffic level, and would have to estimate the effect of total changes on profits.

Because each railroad must set thousands of rates, and each rate affects total volume levels, the new system would require enormous amounts of computation. This means that the accounting department would have to be geared to handle an increased work load with high speed electronic computers. Finally, the law department would have to participate with other railroads in a joint effort to convince the ICC that the new cost formula is economically sound. These are formidable tasks, but the obstacles are not

(Continued on page 100)

Freight car parts are **VITAL!**
specify: **FORGINGS by PITTSBURGH**



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Crucial freight car parts must be able to withstand constant stress, strain and shock without failure. Only drop forgings meet these rigid demands by combining maximum impact strength with high fatigue resistance.

In addition to filling these requirements, PITTSBURGH's railway forgings engineers will lower your costs and increase part dependability by designing Circle-P quality into each freight car forging.

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Look for the Circle-P (P) *. . . it's your assurance of QUALITY*

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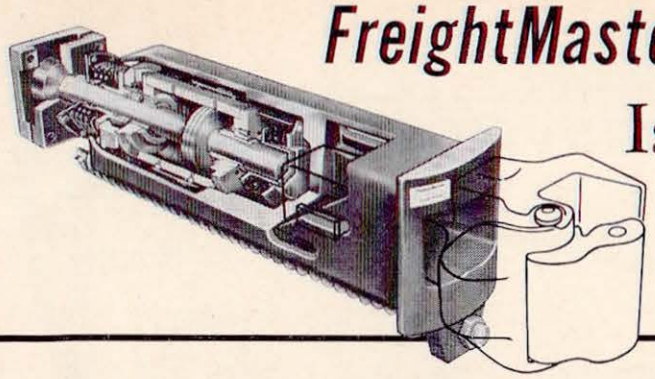
Pittsburgh FORGINGS (P) IMPLEMENTS

(Reference No. 94b)

FreightMaster Versatility...
Is A Matter Of Record



HERE ARE A FEW EXAMPLES OF THE WIDE VARIETY OF ROLLING STOCK EQUIPPED WITH FREIGHTMASTERS INSTALLED BY 20 MAJOR CARRIERS:

Type of Car	Capacity and Length	Type of Service	Car Construction Notes
Existing Box Car	50-T; 50'6"	Newsprint	....
New Box Car	70-T; 50'9"	Glass Service	Equipped with Load Restrainer
Existing Box Car	50-T; 50'6"	Auto Engines and Parts	Equipped with engine and parts racks
New Covered Gondola	70-T; 52'1"	Tin Plate	Uses movable bulkheads
New Box Car	50-T; 50'6"	General Merchandise	....
Existing Flat Car	70-T; 53'6"	Truck Frames	Fabricated Center Sill
New Insulated Box Car	70-T; 50'1"	Food Products	Equipped with Load Restrainers
Existing Box Car	50-T; 40'6"	Newsprint	....
Existing Flat with Bi-Level Rack	85'	Farm Tractors and Implements Trucks and Boats	Rack attached solidly to car structure
Existing Articulated Bi-Level Auto Rack Car	120'	Automobiles	Automobiles carried with rear wheels chocked and no hold-down chains
New Box Car	50-T; 50'6"	General Merchandise	....
Existing Flat Car	50-T; 53'6"	Auto Frames	Fabricated Center Sill
Existing Box Car	50-T; 40'6"	Newsprint	....
Existing Flat Car	70-T; 53'6"	Heavy Equipment	Fabricated Center Sill
Existing Box Car	70-T; 50'6"	Tin Plate	Converted from 50-ton car
New Gondola	70-T; 39'4"	Limestone	....
New AirJet Pressure Tank Car	70-T; 42'8"	High Capacity Bulk Commodities	Partial Center Sill
Existing Box Car	50-T; 50'6"	General Merchandise	....
Existing Box Car	50-T; 50'6"	Newsprint	....

NOTE: Modifications required to adapt either a new or existing car to receive FreightMaster Units can be made with available standard components. These include either cast steel underframe ends, draft sill end castings, striker and bolster center filler castings, or rear lug castings and fabricated parts. Various combinations of these components may be used for any particular application.

New cars, existing cars, long, short, standard, special — almost *any* car can be easily equipped with the cushioned protection of FreightMaster Hydraulic Cushioning Devices with minimum modifications.

When making an installation in an existing car, the modification can be made without removing the bolster center filler or the cover plates. FreightMaster units on either end of the cushioned car act independently of each other. This design gives FreightMaster its unique capability of transmitting its shock-absorbing properties to *adjoining* cars, as well as the FreightMaster Cushioned Car.

Get full details on how FreightMaster versatility can provide the maximum level of impact protection to existing cars, new cars, *your* cars — and do it for a fraction of the cost of other high capacity mechanisms. Write or call FreightMaster, Fort Worth.

FreightMaster has received A.A.R. limited approval for use in general interchange service.

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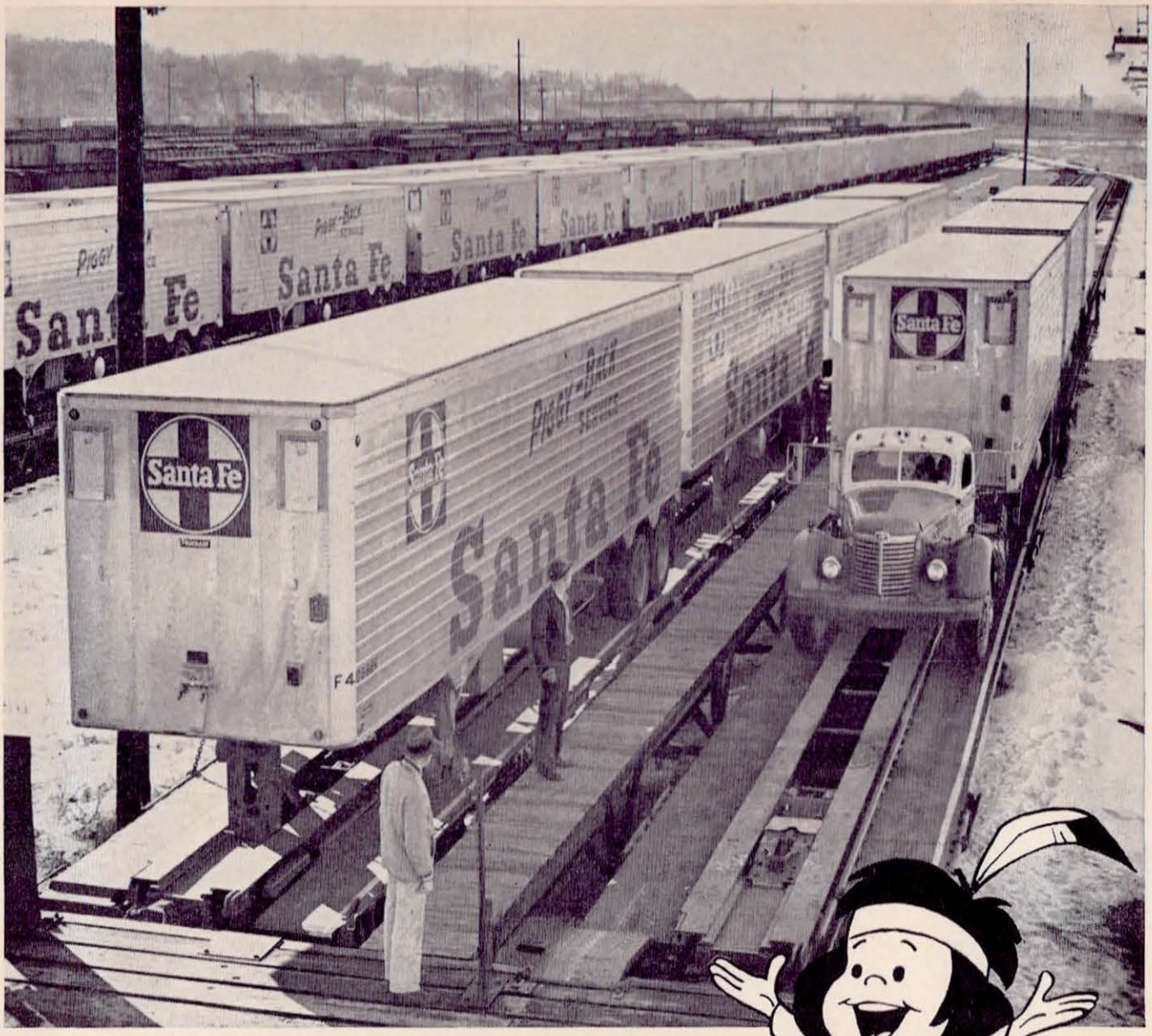


Santa Fe the PIGGY-BACK way

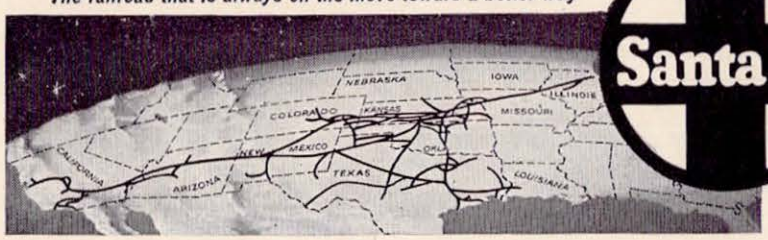
Si! Si! Chico. This modern service is so big on the Santa Fe almost every train now carries piggy-back cars.

Santa Fe's Piggy-Back fleet is one of the most modern in the nation with trailers of all types: refrigerated for perishable and frozen foods; insulated to protect special commodities; flat beds for shipment of unusual sizes and shapes.

New trailers are now on order to take care of your growing needs for Santa Fe Piggy-Back service. More are to be added as a part of our program of "keeping always on the move toward a better way" to serve you.

The railroad that is always on the move toward a better way

Let your nearest Santa Fe representative give you the facts about piggy-back

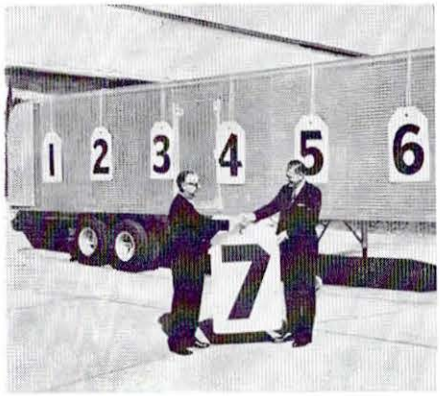


Santa Fe

NEW PRODUCTS REPORT

Freight-Handling System (RA-1)

Using the Load Glide air-in-floor freight handling system, one man can load a 140,000-lb-capacity car in 30 min. according to manufacturer. The system is said to minimize handling time at terminals, shipping and receiving points. Loaded pallets depress valves in surface of hollow aluminum floor, releasing a film of air. The air creates a nearly frictionless bearing on which freight can be moved in any direction. Standard blowers at dockside provide air for the floor. Flooring is divided into 15 sections for random control in loading and unloading. The system works on an air in'ake of 270 cfm with 10 lb of pressure per sq in. to support 4,000 lb on a 40- x 48-in. pallet. Twenty pounds of "push" are ample to move load. An air-in-floor dockboard the width of door and extending out 8 ft is used with box car. Locating pins secure board to car, while casters on other end rest on dock. Solid plywood pallets with resilient bottom surfaces are used for moving loads. Conventional pallets can be placed on them. *Clark Equipment Co.*



Steel Trailers (RA-2)

The "S" model vans feature exterior post side with panels riveted to posts, recessed marker lights in quarterpanel channel, seam-welded steel roof fastened outside of trailer body, exterior wiring recessed in groove in quarterpanel, and recessed header and drain trough. The S-78 with corrugated side panels, the S-74 exterior post van, and the S-72 City Delivery van, with slight modification, are suited for piggyback service. *Trailmobile.*

Lifting Device (RA-3)

The lifting arms of the Saf-T-Lift adjust automatically as they are set in place to various pallet sizes and remain at a 90-deg angle to the base of the pallet. Sling is one-man controlled. A pull on arm-control handle sets the specially designed pivoted lifting arms in place. Sling is constructed of stainless steel, aluminum and nylon. Current capacities are 2,000 and 4,000 lb for handling pallets up to 52 in. *Copperloy Corp.*

Pallet Lifter (RA-4)

The 204-lb pallet lifter, constructed of specially engineered reinforced welded steel, handles 2,500-lb loads up to 44 in. deep and 60 in. high. Its forks are said to be quickly adjustable from 10 to 30 in. over-all width. Lifting lug is designed so that lifter hangs level when loaded or empty. Minimum tare weight makes it impossible to utilize maximum pay load without overloading hoist motor. *Cady Metal Fabricating Inc.*

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS ADVERTISED ON PAGES 2 3 4 6 8 11 12 14-15 16 17 18 19 20 21 22-23 24 25 26 27 28 29 30-31 32 33 34-35 36 37 38-39 40 53 54-55 56 57 58-59 60-61 64 69 71 72-73 74-75 78-79 81 82-83 84 85 86 87 88 89 90A 90B 91 92 93 94A 94B 95 96 100 101 102A 102B 103A 103B 103C 107 108

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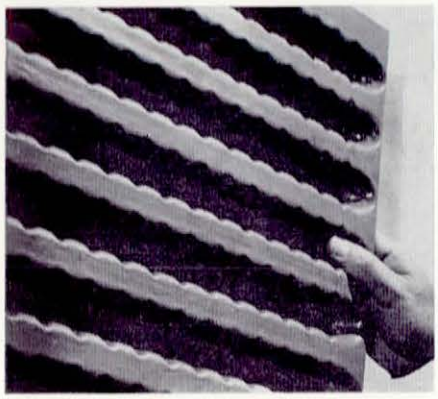
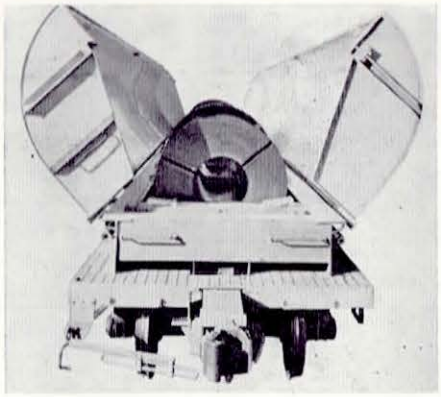
NEW PRODUCTS REPORT



Cargo Control System (RA-5)

A lightweight plastic version of the SALwall, previously in pressed metal form, is now available for use in refrigerated trailers, containers and other interior packaging applications. The damage-control material, produced both from ABS and PVC plastic, is said to be less than one half the weight of steel with the same capabilities and to have been subjected to rigorous tests for strength and durability. *Equipment Manufacturing Corp.*



Coil Car (RA-6)

The 100-ton DFC coil car, said to be the first built from the rails up expressly for damage-free shipment of coiled steel, permits easy loading and unloading of the steel coils. Its permanently attached hood opens like a clam shell and, when closed, protects the steel from the weather. Both sides of the hood operate simultaneously, either manually or by portable electric or air-operated drive. The car, equipped with a 20-in.-travel Hydra-Cushion underframe, handles coils from 30 to 84 in. diameter. Because no deck cushioning or sliding cradle is required, Evans reports the car is capable of carrying at least 50% more than any car now used to ship coiled steel. Its interior heavy-duty crossmembers automatically expand to rest snugly against the coiled steel. The crossmembers slide on the top flanges of the side-sill beams. The Barber S-2-B trucks are equipped with 36-in.-diameter, one-wear wrought-wheels, 6½ x 12 roller bearings, and Wabcopac truck-mounted cylinders. *Evans Products Co.*

Plywood Flooring (RA-7)

Strength and application tests of a new floor system for box cars, vantype trailers, cargo containers and warehouses now being conducted in the Douglas Fir laboratories indicate that plywood has two primary advantages over conventional car decking. Plywood can be bolted to the sills in large, cut-to-size panels, using only about half the number of bolts required for a lumber deck, with a consequent reduction in labor costs. It was also found that a lift truck, which applies a heavy, concentrated load, will not completely puncture the plywood floor. Failures occurred in test floors made up of two layers of commercially available plywood panels and subjected to concentrated loads of up to 30,000 lb, but the test wheel did not break through. For a 6,000-lb-capacity lift truck, the normal maximum load per drive wheel is only about 7,500 lb. A floor of structural plywood panels in a box car in actual use since last April is said to be holding up well. The panels can be unbolted and lifted out of place. *Douglas Fir Plywood Assn.*

Trailer Markings (RA-8)

Self-adhesive, durable outdoor numerals and letters for piggyback trailers are available in die-cut style in various colors, with minimum height of 4 in., although 5-to-8-in. sizes are available. The 4-in. number also can be had with black legend on a bright yellow background. The markings conform to the new AAR rulings calling for trailers to be marked in four places with the owner's initials, and code denoting length, type and reporting number. *Kux Mfg.*

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11/25/63

Market Outlook

Carloadings drop 1.2% from previous week's

Loadings of revenue freight in the week ended Nov. 16 totaled 587,822 cars, the Association of American Railroads announced on Nov. 21. This was a decrease of 6,959 cars, or 1.2%, compared with the previous week; an increase of 16,386 cars, or 2.9%, compared with the corresponding week last year; and a decrease of 3,513 cars, or 0.6%, compared with the equivalent 1961 week.

Ton-miles generated by carloadings in the week ended Nov. 16 are estimated at 12.9 billion, an increase of 7.1% over the corresponding week of 1962 and an increase of 9.7% over the 1961 week.

REVENUE FREIGHT CARLOADINGS

For the week ended Saturday, Nov. 16

District	1963	1962	1961
Eastern	82,269	80,806	86,220
Allegheny	97,034	89,653	98,630
Pocahontas	56,950	51,233	55,694
Southern	114,942	113,554	109,356
Northwestern	71,162	69,624	78,539
Central Western	125,769	125,024	123,910
Southwestern	39,696	41,542	38,986
Total Western Districts	236,627	236,190	241,435
Total All Roads	587,822	571,436	591,335
Commodities:			
Grain and grain products	63,933	63,436	56,490
Livestock	5,198	5,379	5,147
Coal	118,871	109,788	113,726
Coke	7,007	6,019	7,843
Forest Products	38,079	37,157	37,180
Ore	30,469	20,632	38,588
Merchandise l.c.l.	15,033	20,843	26,168
Miscellaneous	309,232	308,182	306,193
Nov. 16	587,822	571,436	591,335
Nov. 9	594,781	586,183	605,353
Nov. 2	622,566	608,587	619,435
Oct. 26	624,581	614,632	647,549
Oct. 19	626,180	613,226	650,958
Cumulative total, 46 weeks	25,841,087	25,766,556	25,480,973
Estimated revenue ton-miles (millions) 46 weeks	555,400	530,500	501,500

PIGGYBACK CARLOADINGS.—U.S. piggyback loadings for the week ended Nov. 9 totaled 16,242 cars, compared with 15,100 for the corresponding 1962 week. Loadings for 1963 up to Nov. 9 totaled 694,691 cars, compared with 614,398 for the corresponding period of 1962.

IN CANADA.—Carloadings for the ten-day period ended Oct. 31 totaled 122,175 cars, compared with 85,690 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Oct. 31, 1963	122,175	34,730
Oct. 31, 1962	110,044	34,576
Cumulative Totals		
Oct. 31, 1963	3,014,254	967,346
Oct. 31, 1962	3,001,948*	998,172

*Revised

New Equipment

FREIGHT-TRAIN CARS

► *Orders Increase.*—Orders were placed in October for 8,533 freight cars, compared with 2,319 in September. October 1962 orders totaled 4,330. Deliveries in October totaled 4,725, compared with 4,327 in September, and 2,799 in October 1962. Backlog of cars on order and undelivered as of Nov. 1 was 22,196, compared with 18,388 on Oct. 1, and 12,159 on Nov. 1, 1962.

TYPE	ORDERED OCT. 1963	DELIVERED OCT. 1963	ON ORDER & UNDELIVERED NOV. 1, 1963
BOX-PLAIN	1,235	1,602	4,485
FLAT	731	744	1,622
GONDOLA	0	20	35
HOPPER	4,800	530	8,276
COVERED HOPPER	427	579	2,777
REFRIGERATOR	250	624	2,155
STOCK	0	0	300
TANK	1,088	612	2,423
CABOOSE	2	13	77
OTHER	0	1	46
TOTAL	8,533	4,725	22,196
CAR BUILDERS	3,804	3,366	11,626
RAILROAD SHOPS	4,729	1,359	10,570

SPECIAL

► *Maine Central.*—Has ordered several pieces of snow-handling equipment at a cost of nearly $125,000. The units include front-end loaders, snow blowers and mechanical snow sweepers.

► *San Francisco Bay Area Rapid Transit District.*—Has awarded two subcontracts for transit equipment to be evaluated for its proposed 75-mile regional rapid transit network. The Budd Co. has been awarded a $380,000 contract, and LeTourneau-Westinghouse, a subsidiary of Westinghouse Air Brake, has received a $268,000 contract, for the development and testing of new transit car trucks.

► *Eight Months' Purchases Up 5.4%.*—Purchases by domestic railroads of fuel, material and supplies in this year's first eight months were $49,389,000, or 5.4%, higher than in the comparable 1962 period. Purchase estimates in following tables were prepared by Railway Age.

PURCHASES*	August 1963 (000)	Eight Months 1963 (000)	Eight Months 1962 (000)
Rail	$ 1,443	$ 29,621	$ 33,393
Crossties	4,435	30,110	23,059
Other Material	85,424	660,838	615,043
Fuel	29,572	242,034	241,719
Total	$120,874	$962,603	$913,214

*Subject to revision

New Facilities

► *Kansas City Southern.*—Will install a 55-station microwave system between Kansas City, Mo., Dallas and Beaumont, Tex., and New Orleans, La., at an estimated cost of $4 million. Equipment is to be supplied by Motorola, Inc.

► *New York Port Authority.*—Will construct a $349,000 carfloat bridge to provide all railroads in the New York City area with access to Port Newark and Elizabeth, N.J. The facility—to be constructed by mid-1964—will handle carfloats carrying up to 20 cars.

Cost-finding fundamentals

(*Continued from page 94*)

insuperable. The approach suggested here is feasible and certainly should be given a try. It is the only way now available to proceed toward a cost system which will allow railroads to utilize fully in the public interest their high capacity for economical mass production.

II. Operating and traffic officers should be given the opportunity to learn more about the basic concepts of cost-finding. Cost research is usually carried out by staff specialists who report to line officers of the operating, traffic and executive departments. Unfortunately, there is often little communication between line officers and the cost staff. Cost finding is considered a mysterious and highly technical subject, and, since a whole new jargon has been developed by the cost finders for use in their work, there often exists no adequate language for conversation between cost finders and others.

Despite this lack of effective communication, managers are under heavy pressure to accept the cost estimates now being provided for them. They have, after all, nothing better to go on. Also, they are constantly exhorted in speeches and articles to accept cost finding as a modern and scientific means of bringing railroad management up-to-date, on a par with other progressive industries. And the cost estimates usually seem precise to the hurried executive, who has neither the time nor the inclination to check the inexact assumptions that the cost-finders have necessarily included in their calculations. Thus managers usually accept the cost estimates that are provided and use them in reaching important decisions, even though they don't fully understand how the figures are produced.

The basic concepts of cost-finding are quite simple, and communication between line and staff personnel can be improved. A planned series of discussions held on an informal basis with questions and ideas freely talked over—between members of the cost staff and small groups of management men concerning the basic concepts, techniques, and applications of cost finding—might help to get communication flowing. A Primer of Cost Finding in outline form prepared by the cost staff could be used to guide the discussions. After a series of such sessions, a management officer should be better able to utilize the cost estimates given to him. He would be familiar with both the pitfalls and the benefits of cost finding. Most important, he would realize that there is no such thing as *the* cost of doing something, or even *the* out-of-pocket cost. Instead there is an almost infinite number of widely different costs that can be estimated for a single operation simply by varying the concepts or assumptions that underly the cost figures.

The discussions should be just as beneficial for the cost specialists. They would begin to appreciate the critical opinion held by many line officers—that there often exists a large gap between the theories of cost research and the practical realities of day-to-day management. Furthermore, the specialists would be required to take the time to re-evaluate the basic concepts with which they work and which sometimes are forgotten in the rush of everyday demands. Much productive thought on the part of the cost staff should result from the necessity of presenting its ideas—boiled down to basics and stripped of jargon—to a group of skeptical and hard-questioning operating and traffic officers. The end result should be a better understanding on the part of all concerned of how cost specialists and management line officers can best work together toward common goals.

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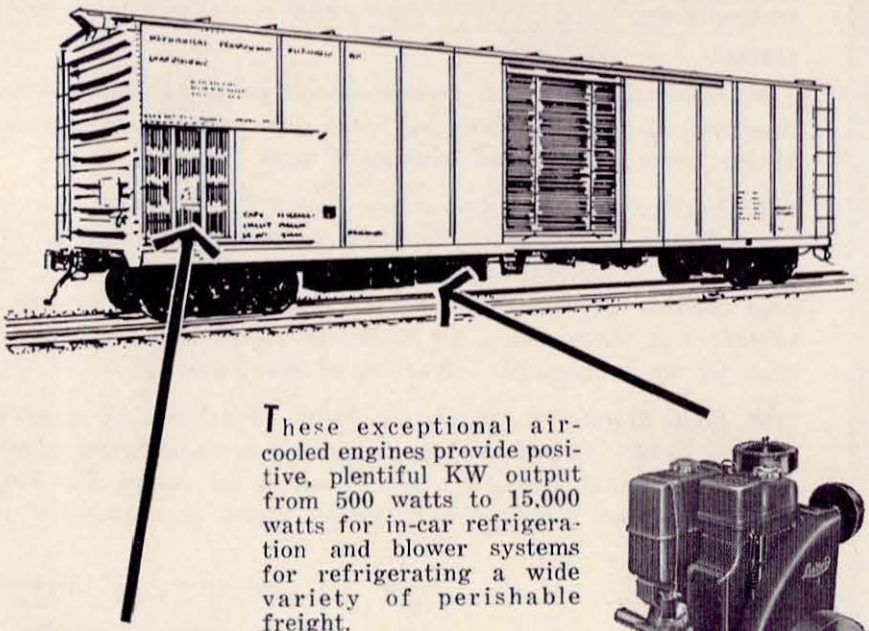

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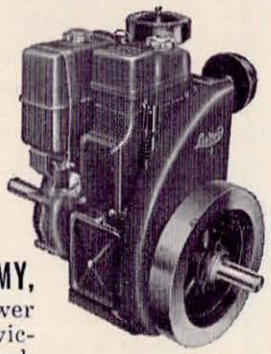
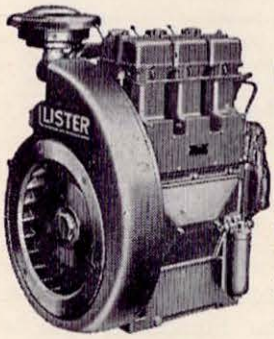


Lister Model SL1, 4.25 HP @ 1800 RPM for blower applications.



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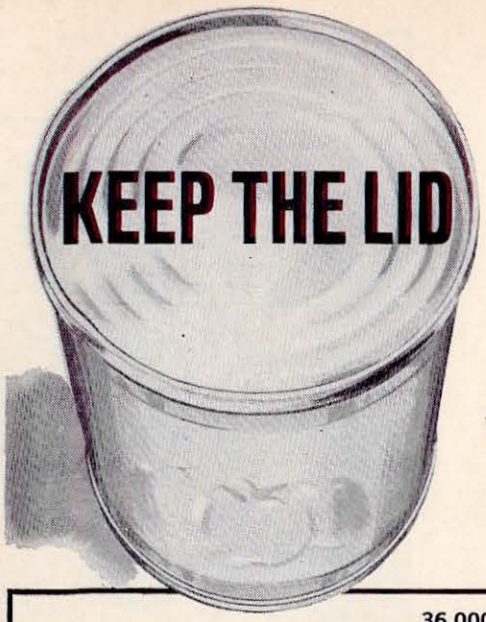

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Lake Wales, Fla. to Atlanta, Ga.	$223.20	.62	$306.00	.51	$345.00	.46
Plant City, Fla. to Charlotte, N. C.	$234.00	.65	$324.00	.54	$375.00	.50
Orlando, Fla. to Chicago, Ill.	$392.40	$1.09	$600.00	$1.00	$637.50	.85
Bradenton, Fla. to Detroit, Mich.	$399.60	$1.11	$606.00	$1.01	$697.50	.93

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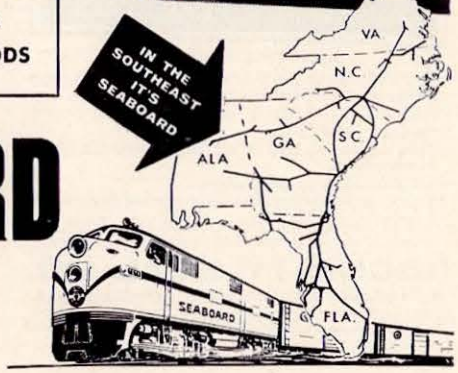

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Spend our money for your piggyback trailers. For all your rubber-tire equipment.

Leasing from Berman doesn't touch your capital. You pay for your trailers month-by-month. And with a Berman lease you'll know your exact costs years in advance.

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C&O

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C&O-B&O

CANADIAN NATIONAL.—**Wilfred C. Bowra,** general manager, Great Lakes Region, appointed vice president, Prairie Region, Winnipeg, Man., succeeding **Douglas V. Gonder,** named vice president, Great Lakes Region, Toronto, Ont., effective Jan. 1, 1964.

Richard W. Dodds, assistant sales promotion officer, Montreal, appointed assistant area freight sales manager, Toronto.

CHESAPEAKE & OHIO.—**Gregory S. DeVine,** a senior vice president—in charge of coal traffic and development, elected executive vice president. **John E. Kusik,** senior vice president for finance, elected a member of the board of directors and chairman of the finance committee. Mr. Kusik is also a director, member of the executive committee and vice president—finance, **Baltimore & Ohio.**

Howard Skidmore, director of public relations and passenger traffic, C&O, Cleveland, elected a vice president of both the C&O and the **Baltimore & Ohio.** Mr. Skidmore's main responsibilities will be in public relations.

Industrial Traffic

John S. Vitz, traffic specialist, **The Quaker Oats Co.,** appointed traffic manager.

W. T. Sheffield has been named traffic manager of **Swift & Company's** Moultrie, Ga., plant. Mr. Sheffield succeeds **T. E. Maxwell,** who retired Oct. 26 after 45 years of service.

Lowe P. Siddons, general traffic manager of **Holly Sugar Corp.,** Colorado Springs, Colo., retired Nov. 1. **J. R. Copeland,** traffic manager, will be responsible for all traffic matters.

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(Reference No. 103a)

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(Reference No. 103b)

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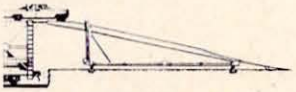

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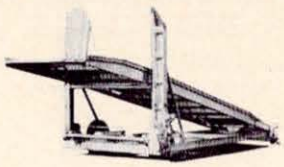

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(Reference No. 103c)

YOU OUGHT TO KNOW

Low bids on new cars for the Port Authority Trans-Hudson Corp. were submitted by Hitachi, a Japanese builder. Bids were also submitted by St. Louis Car Div. of General Steel Industries, Budd, and Pullman-Standard. PATH emphasized there will be a two-month evaluation period and that the order (for between 150-260 cars) would not necessarily go to the low bidder (RA, Nov. 18, p.16).

A new coal truck service has been organized by Leaseway Transportation Corp. to haul coal from West Virginia mines to barges on the Ohio River. Special hopper trailers will operate around the clock serving mines of the Riverton Coal Co. 10 to 20 miles from the river. About 6,000 tons of coal will be moved daily, generating revenues that are expected to total more than $1 million a year.

Shippers from all over the country met in St. Louis late last week to worry over common problems and establish a consensus of what the National Industrial Traffic League thinks should be done about them. NITL heard reports on matters as diverse as AAR proposals to change car demurrage rules; Teamster President James Hoffa's new demands on the trucking industry; legislation in Congress aimed at controlling illegal interstate highway transportation, and the AAR's standard transportation commodity code.

Emergency board members appointed by President Kennedy to look into the 10-month-old Florida East Coast strike are Derrick Bok, professor of labor law at UCLA; Paul N. Guthrie, arbitrator and professor of economics at the University of North Carolina; and Harry H. Platt, a Detroit attorney who served as chairman of the emergency board in the Southern Pacific-Order of Railroad Telegraphers case.

Total U.S. freight traffic will double by 1980 and double again by the year 2000, according to a recent study quoted by the Pennsylvania's Chairman Stuart T. Saunders, in an address to the Cleveland chapter of the National Defense Transportation Association. Recalling that the railroads carried 90% of all military freight and 97% of all troop movements in the U.S. during World War II, Mr. Saunders said that "only the railroads can supply the quantity and quality of transport needed to support the needs of our economy either in war or peacetime . . . the railroad will remain basic and indispensable."

Orders for railroad specialties (side frames and bolsters) are running well ahead of the 1962 pace, reports Birdsboro Corp. President Robert W. Frank. He attributes the increases to "a stronger, healthier railroad industry." Overall, Birdsboro has a backlog of approximately $20 million in unfilled orders, second highest in its history.

L&N will spend 60% more for freight equipment and locomotives in 1964 than in 1963. Additional outlays, says L&N President W. H. Kendall, will depend on economic conditions during the year.

A strike against Illinois Central has been enjoined by U.S. District Court Judge Joseph S. Perry. Judge Perry issued an injunction against the strike, originally set for July 25 by four operating unions over changes in working conditions at the East St. Louis, Ill., yard. In announcing his decision, Judge Perry agreed with IC's contention that the dispute was a minor one and "a matter for the [National Railway] Adjustment Board." The dispute concerned change in working conditions resulting from relocation of a tie-up point.

The transportation industry's first Good Scout Award was presented to Clair M. Roddewig, president of the Association of Western Railroads, at a luncheon Nov. 18 in Chicago. Mr. Roddewig was cited for "his leadership in the transportation industry as well as for his contributions to civic, educational and character-building organizations," according to E.C.R. Lasher, president of North American Car Co. and luncheon chairman. Mr. Roddewig is president of the Chicago Board of Education.

Montreal Locomotive Works reports a net income of $982,000 for the first 9 months of 1963, compared to a loss of $371,000 for the same period last year. The company's backlog of unfilled orders stands at approximately $17 million.

Paper mill construction in eastern Maine is expected to bring big benefits to both the Maine Central and the state's economy as a whole, according to MC President E. Spencer Miller. Coming on the heels of International Paper Company's expansion of its Livermore Falls facilities, Georgia-Pacific's decision to build a 500-ton pulp mill at Woodland "is particularly gratifying from a railroad standpoint," Mr. Miller said.

New York Central announced installation of the longest stretch of welded rail ever laid in its NY commuter electrified zone, on express track No. 2 between Marble Hill and Mott Haven. Each "ribbon" rail is 1,330 feet long, as compared to standard 39-foot lengths, and the quarter-mile rails are welded together rather than joined by splice bars. This installation brings to approximately 10 miles the amount of welded rail in NYC's commuter electrified zone.

Meal coupons are now being sold by the Atlantic Coast Line as a new service to dining car passengers on the "Champions." In an effort to dispel preconceived notions about high priced meals aboard trains, ACL is offering the coupons to travelers along with their tickets, at prices ranging from $1.25 for breakfast to $1.50 for lunch and $2.75 for dinner.

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REPRINTS

Reprints of articles appearing in this issue are available in minimum quantities of 250. For information on prices, write to George Johnson, Railway Age, 30 Church Street, New York 7, N.Y. 10007.

Save us from crêpe-hangers!

Nostalgia for steam induces some "fans" to portray a sad railroad "public image" that will do harm unless vigorously corrected.

There is a lot of talk going on (much of it superficial) about the so-called "public image" of an industry, or a company. What the term means is the reputation the company or industry has in popular opinion. Is it "progressive" or in the doldrums? Is it going forward or slipping backward? Is it a good or bad enterprise to go to work for or to invest in?

Some people seem to believe a favorable "public image" can be created, practically out of thin air, by advertising or other "public relations" efforts. Our observation leads us to the conviction that, while skillful advertising and publicity are helpful in arousing favorable public opinion, the problem is much more complex than that.

A lot of people who do most of their traveling by highway or air have almost forgotten that the railroads exist—or, at any rate, have forgotten that they are important to the nation's welfare and the public's convenience. And, when people ride the trains of impoverished railroads where surroundings are necessarily imperfect, they are all too likely to impute the same conditions to all service of all railroads.

To complicate the problem still further, many of the railroads' warmest friends look on railroading as some kind of public service that ought to be kept going at high standards of performance, regardless of expense. A typical example of this attitude is a recent article in Playboy magazine, entitled "Lament for the High Iron," by Charles Beaumont. It is one of those nostalgic pieces by a railroad "fan"—who loves his recollection of old style steam-powered railroading, and blames both the railroads and the public for the fact that there has been so much shrinkage in luxurious passenger service.

But Mr. Beaumont goes further, and kisses off railroad freight transportation, too, as unimportant and easily dispensable. So how do you go about correcting a friend who carves (as it were) a flattering and affectionate tribute to you on a tombstone, while you're still very much alive? Here (in part) is what President D. W. Brosnan of the Southern had to say in a letter to Playboy's editor:

"The future for railroads lies mainly in the movement of goods, and, notwithstanding Mr. Beaumont's light dismissal of this vital role with the unsupported observation that 'one cannot argue that trains are still ideal for shipping freight,' this future is bright. Anyone who thinks otherwise should hear spokesmen for the trucks and barges loudly bewail the prospect of having to meet railroad competition on more nearly equal terms, as they recently did in Congressional hearings on S. 1061 and H. R. 4700, the 'minimum rates' bills.

"In spite of the advantages they enjoy through government subsidy and preferential regulation, it is clear that railroad competitors do not foresee the time when railroads can be written off as a principal contender for the movement of goods."

Eldon Martin, the Burlington's vice president and general counsel, wrote a letter to Author Beaumont in which he pointed out the railroads' importance as a freight carrier—much as Mr. Brosnan did. He then proceeded to show that the kind of superior passenger service over which Author Beaumont delivered a funeral oration is by no means a thing of the past. Taking an example close to home for him, he went on to say:

"Have you ever traveled between Chicago and San Francisco on the California Zephyr? Do you know that this train was deliberately scheduled slower than necessary so the passenger can enjoy, during daylight from a vistadome, the glories of the Colorado Rockies, the High Sierra, and the Feather River Canyon, and, at night, sleep through the desert? Do you know that it is filled to near capacity on almost every trip . . . .?

"Do you know that the porters, conductors, stewards, waiters and Zephyrettes are carefully screened and trained to create the class and conditions you so vividly portray . . . . ? All this is waiting for you here and now. It isn't gone and it isn't going. . . ."

The best defense is usually the offense. Messrs. Brosnan and Martin would not have felt the need to write the letters they did, to correct Author Beaumont's omissions, if all railroads were successfully "selling" their strong points to the public. But, here again, there is more to the "public image" problem than publicity alone. An image, to win acceptance, must have solid substance behind it.

What's in the showcase?

People are going to continue to judge the railroad industry largely by what they see of railroad passenger service. If this observation is correct, then it would appear better to discontinue hopelessly unremunerative trains than to continue running them (so to speak) with patches in their pants. Probably no one thing would help so much to solve this problem as a few well conceived mergers—plus (perhaps) getting out from under the burden of those suburban operations that cannot be upgraded and made to break even, so as not to be a burden on remunerative services.

Meantime, let's try to persuade our "fan" friends not to write epitaphs for us like the piece in Playboy —especially pieces that mirror the writer's nostalgia for steam power rather than the actual facts.

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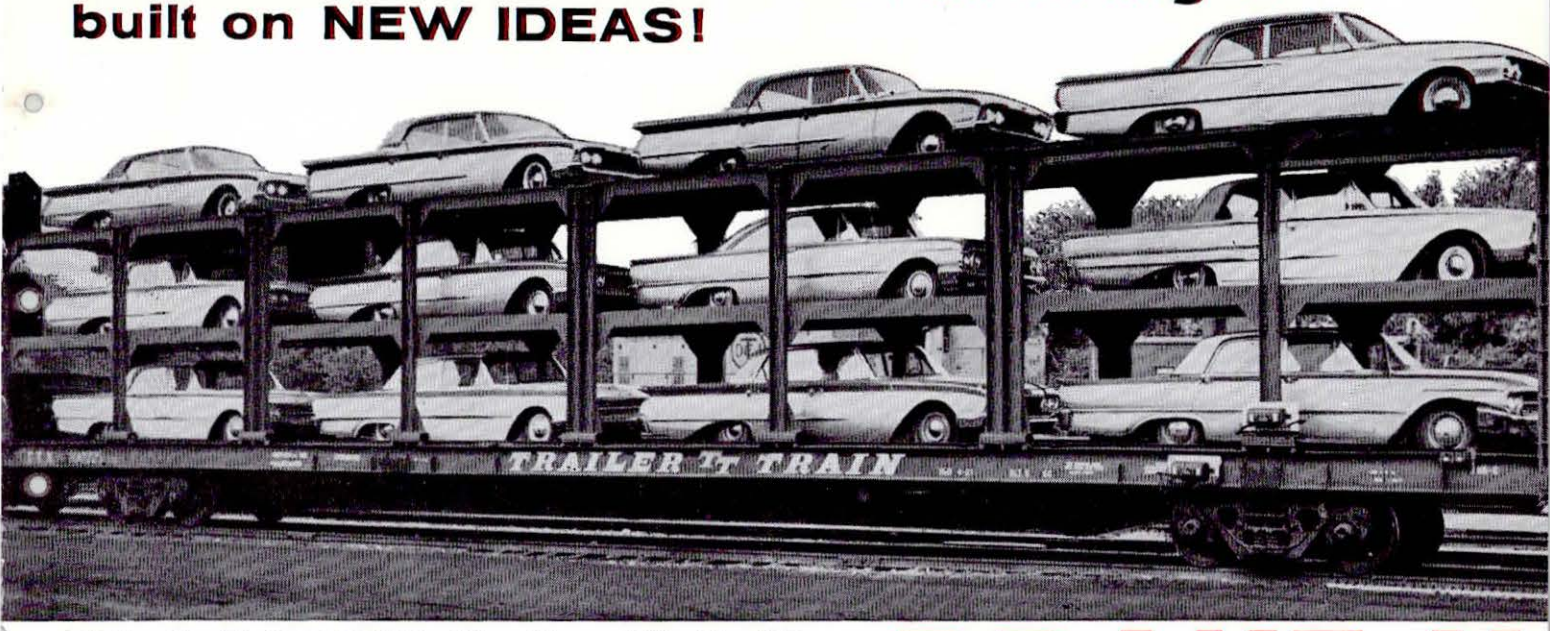

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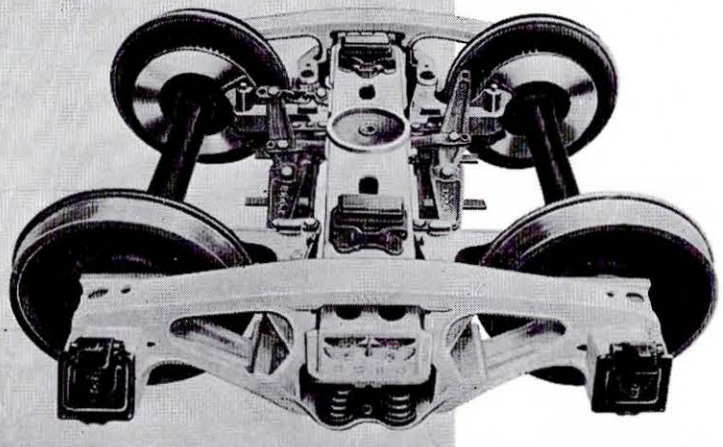

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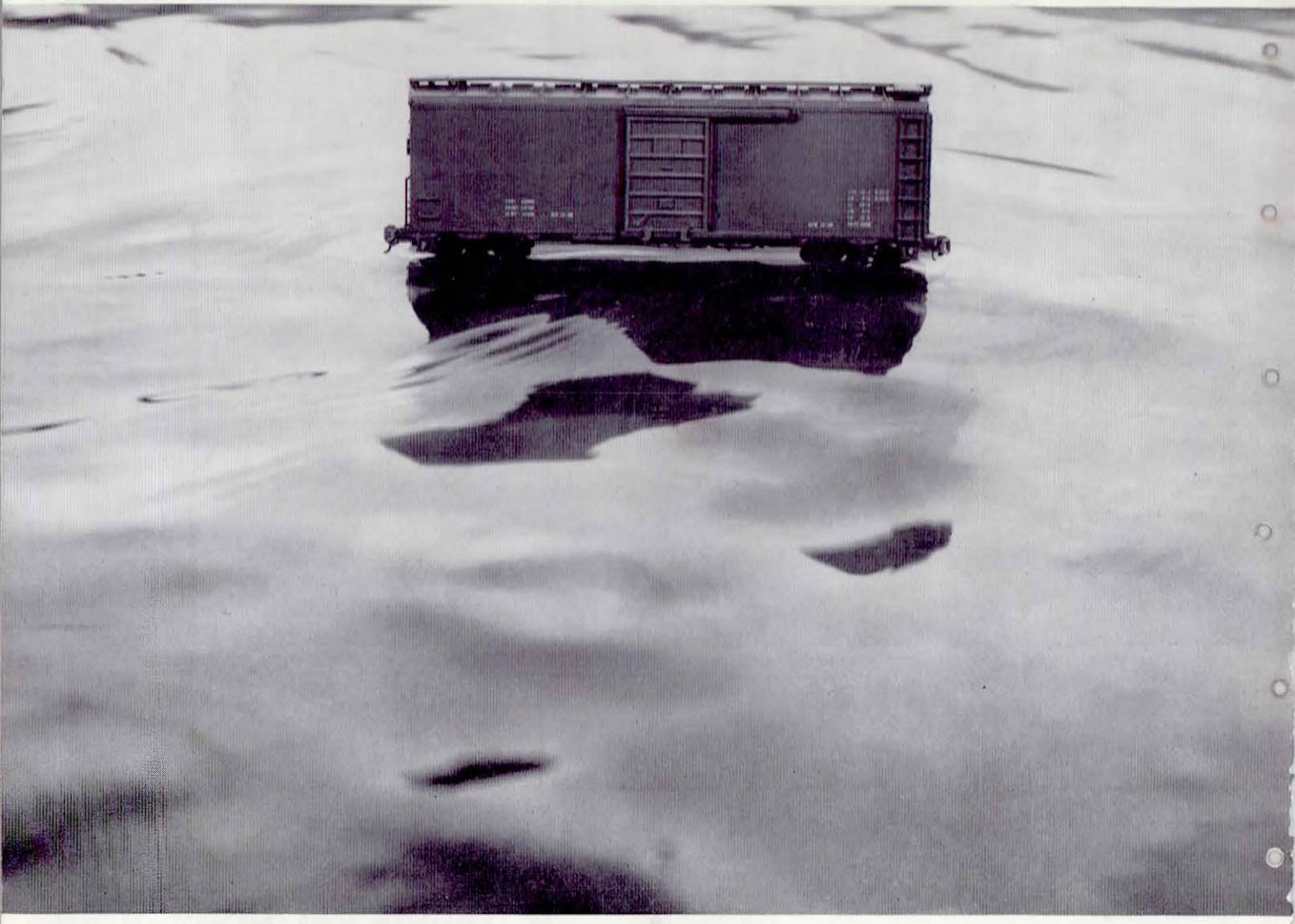

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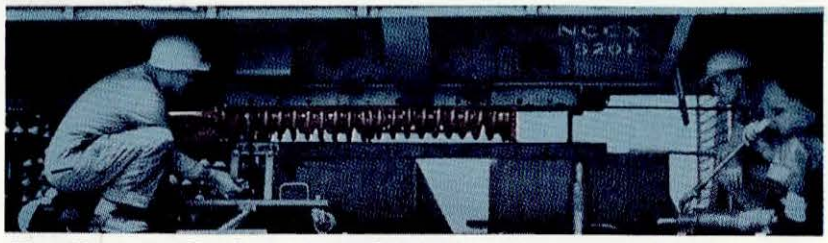

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